JAFFNA MEDICAL JOURNAL

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Vol. 25 June 1995 No. 1

CONTENTS

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(b) **Chaptor in book** — Busvine JR. Insecticides for use against posts of public health importance. In Hosbon W. ed. The Theory and Practice of Public Health. London: Oxford University Press 1965: 162 — 5

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Editorial

Jaffna Medical Journal 1995, 25 - 1

THE JAFFNA MEDICAL JOURNAL was to be in your hands after a lapse of 6 years. Our last issue was December 1989.

The prolonged ethnic conflict since 1983 and the escalation of hostilities since 1987 have been affecting the regular publication of the journal. The ' war ' which broke out in 1990 and the subsequent closure of the hospital, shifitng of the services to the Green Memorial Hospital Manipay together with the embargo on the transport of stationery and printing material to Jaffna, discontinuance of electricity - all forced us to abandon the attempts to publish the journal.

Our 50th Anniversary Celebrations which was to be held in 1991 was also postponed indefinitely.

With the enthusiasm of the few members who are still with us here we decided to restart the publication of the journal.

We handed over the scripts to the printers to have the journal ready by June 1995. The ' operation leap forward ' by the Sri Lankan military pushed the release of the journal to December 1995, and the ' Operation Riviresa ' destroyed all hopes of publishing the journal.

In one day (30th october 1995) nearly 500,000 people moved out of Jaffna as a result of ' Operation Riviresa '. The Jaffna Teaching Hospital was abandoned, including most of the assets of the Jaffna Medical Association.

When we returned to Jaffna during the latter part of April 1996, we were among the very few lucky ones to find most of the script and part of the already printed material undamaged. Hence we decided to continue with the publication. We are thankful to the employees of St. Josephs Catholic Press who preserved whatever was left behind after the destruction.

Although the journal is dated June 1995 in fact it will be completed and released only in December 1996.

Several members and wellwishers who are overseas have contributed financially towards publication of the journal.

We hope to publish it twice a year as usual.

We trust you will support us and bear with any short comings.

Editor

Presidential Address

WORKING UNDER DIFFICULT CONDITIONS

*M. Ganesaratnam

Jaffna Medical Journal 1995, **25**, 2-5

I have chosen this subject as this is the subject which is most applicable to us now. Jaffna Medical Association is involved in the education and maintenance of standards by the medical profession in Jaffna, and this is partly being achieved with great difficulty.

As all of you are aware, the Sri Lanka Medical Association delegates who were keen to come for the sessions were unable to come due to the war like situation here. We were very hopeful that they would come, and are very disappointed that they were unable to make it. They are with us in spirit and we are thankful to them. Disappointments such as these are the norm of working under difficult conditions. We have to accept these and do the best we can, that is adjust to the circumstances. We have adjusted by postponing the Golden Jubilee Celebrations, and by holding these sessions in a low key.

Our profession is a noble one and the WHO target is to achieve health for all by the year 2000. I cannot see this happening here in 6 years. time, but let us hope that there is a chance. This is because we are without specialised staff and also cut away from recent advances.

Health refers to a state of physical and mental well-being. After attending the sessions where many papers were presented regarding the effect of war on the mental health of the population, no one will have any doubts that the war has to end to ensure this aspect of health.

Regarding the physical aspect of disease we can achieve some degree of success. This involves preventive as well as curative services. Preventive health methods include proper sanitation, proper immunization, control of vectors, prevention of accidents and injury, proper health education and eradication of diseases from the face of Earth (such as achieved in small pox).

Curative services are provided by the so called " Western " practitioners as well as by others who include Homeopathic, Ayurvedic and faith healers.

As far as the " Western " system is concerned, the service is rendered by various organizations and means. These include Hospitals (Government

President, Jaffna Medical Association and Consultant Surgeon, General Hospital (Teaching) Jaffna.

and Private), Clinics, Dispensaries M. O. H. Offices, Campaigns (Anti TB, Eye donation, Anti-Leprosy) Societies Blood Bank Services, M. R. I., M.S.D. Bio-Medical Engineering and the Ambulance Services. The Red Cross and I. C. R. C. as well as the M. S. F. are also involved now.

The Hospital Services require the interplay of many factors. For efficient functioning these must be properly balanced, and these services require trained staff, Equipment, Building, Water, Electricity and drainage facilities, proper food supply and facilities for transport.

Once this infrastructure is understood, it is easy to understand how this system can fail under pressure. In difficult areas the workload increases whereas the facilities become limited thus resulting in a chaotic situation.

The workload increases due to increase in the number of patients. This is due to closure of some hospitals, due to increase in illness as a result of malnutrition and spread of communicable diseases, and due to increase in injuries due to the war. The workload also increases due to simple diseases getting complicated by the time they reach the hospital due to poor transport and improper diagnosis due to lack of trained staff at the periphery. Patients take days to reach Jaffna from Kilinochchi as they come through Kilali, where the transport is irregular.

Facilities in the hospitals become limited due to the reduction of staff, who migrate when the situation in the region is unstable. This is true now in Jaffna and was also seen in the South in 1988-89. The staff efficiency becomes less due to poor transport and problems at home, and we cannot blame the staff for conditions beyond their control. We cannot blame those who leave, and should be thankful to those who remain to treat the unfortunate victims who fall ill here. Why some remain is difficult to explain and is due to their family attachments, their attitude and also due to their conscience, which prevents them from running away.

The turnover at OPD and clinics at the General Hospital Jaffna increased by 16% from 616,000 in 1989 to 717,900 in 1992, and the Surgical Clinic patients increased by 56% from 18,840 in 1989 to 32,890 in 1992. The staff position, mainly of the experienced staff has deteriorated badly. The position in the South in 1988-89 was not so bad as regards the staff, but the workload at Negambo Hospital increased due to closure of the Colombo Hospitals.

Now that we have identified the problem how do we adjust. Firstly, we have to adjust the way we work. We have to trim our services to essential and urgent ones when the need arises, and do more when the pressure is less. We use the system of "Triage" (so popular in the management of mass casualities) when

he workload is high. We turn away patients not requiring urgent treatment at these times, but try to accommodate them when things are easy. If anyone visits a motor garage or a bicycle repair shop they will understand what I mean.

The next would be austerity and frugality. The Jaffna man is famous for these two and this feature stretches what is available. We do not have air-conditioning in our operating theatre. The lack of air conditioning although very distressing to the staff, seems to have not increased the morbidity of our patients. The wounds contaminated by our sweat seems to heal well, and this made me to toy with the idea whether to write a paper on the effect of sweat contamination in surgical wounds.

We re-use what we have. We have washed and reused gauze towels, and remove pins and plats from patients and use them again. The electricity supply is limited to certain hours and we adjust our working time in accordance.

Thirdly, we have to improve staff efficiency. We can achieve this by improving their working conditions so that their energy is not spent on a struggle to exist. Everyone knows that transport to the Hospital Staff is provided at a nominal fee from Point Pedro, Chavakachcheri, and Chankanai, t is also a common knowledge that kerosene is given to our staff at a fair price. This enables them to devote their time and energy to work in the hospital.

We also increase the staff efficiency by utilising them when they are free and whenever possible. we do minor surgery in our ward on our clinic days. This helps the patients (as they would have to pay exorbitant rates for travel if they are asked to come on another date.), and also takes the load off the Operating Theatre which is usually overworked. It also releives the ward staff of their boredom of routine work. It may be said that operating in the ward will lead to infection. None of the patients operated in the ward developed any infection so far.

It is not probably not out of place to say that in 1988-89 the final year Medical Students were posted as Intern House Officers before they sat for their final MBBS Examination. These Doctors were quite competent and rose to the occasion and did good work. This helped in the smooth functioning of the services at that time.

Fourthly, we have to send the patients whom we cannot manage to Colombo. and others to the local hospitals by arranging transport. It was with difficulty that we arranged the transport at the begining, but now it has become a regular feature.

Next we have to train our future staff in all grades. You may be aware that the attendents, & nurses trainin8

goes on now. We have to train our future Doctors as well as the Specialists. We have been doing this and the JMA has been conducting post-graduate classes for more than one year. I am glad to say that four of our doctors were successful at the Part I Examination held by the PGIM this year.

Our Hospital when compared to Hospitals such as Batticaloa is having a better staff position due to the Medical Faculty here. Some of the Doctors chose to stay and work here, although most prefer to leave.

Lastly, we have to shout for help. This is what we did when we asked SLMA to come over and help us with our sessions. We also sought help from overseas where many Jaffna Doctors are holding good positions. None of them were able to come to our sessions but they help us in many ways and we are gratefu l

I hope that we will have peace before long so that this disorganised life would become organised, so that we will be able to serve the people better, and achieve health for all by the year 2000.

ANAESTHESIA IN A CIVIL WAR SITUATION – AN EXPERIENCE IN JAFFNA, SRI-LANKA.

*R. Ganeshamoorthy

Jaffna Medical Journal 1995, 25, 6-10

Civil war in the northern and eastern parts of Sri Lanka has been going on for over ten years and it has escalated since June 1990. In a civil war, where there are no clear cut frontiers, civilian casualties are bound to occur in large numbers. Furthermore, the logistics of war take precedence over all humanitarian considerations.

During the period of this study, (from June to December 1990), the Jaffna Teaching Hospital situated in the Northern Province, was isolated, had to be shifted into a smaller Missionary Hospital and had to face a total power cut, economic, fuel, communication and transport blockade. This situation improved when the ICRC (International Committee of Red Cross) stepped in to provide protection in November 1990.

**Formerly Consultant Anaesthetist, General Hospital (Teaching) Jaffna. Present address: Department of Anaesthesiology, Armed Forces Hospital Sultanate of Oman*

There was total interruption in the supply of compressed gases including oxygen. The draw over systems-(EMO inhaler & Triservice air apparatus), oxygen concentrator (de Vilbis), ambubags, local anaesthetics analgesics and ketamine were used to provide anaesthetic care during this period.

4930 surgical patients were provided with anaesthetic care during a period of six months. Fifty percent of them were victims of war injury.

Knowledge of war trauma, particularly of the wounding agent, mechanism of injury by high velocity missiles and shock waves is essential to the treatment of war injury (*1*). In Jaffna, 55% of the wounds were caused by shell fragments. 30% by bullets, 12% by mines and 3% by bomb blasts. Almost a similar pattern had been reported for the Falklands War of 1982 (*2*) and Lebanese civil war of 1975-76 (*3*).

The following table shows an analysis of war wounds according to the site affected in four different wars:

Site of injury	Falklands (*2*) 1982 n=258	Israel (*4*) 1973 n=512	Lebanon (*3*) 1975 n=8324	Jaffna 1990 n=2229
Limbs	67.5%	70.0%	20.0%	92.7%
Head	14.0%	9.0%	13.0%	1.0%
Chest	7.0%	7.0%	21.0%	1.3%
Abdomen	11.5%	13.0%	35.0%	5.0%

In the Jaffna study, surface injuries to head, chest and abdomen were included in the limbs category, which accounts for the higher percentage of limb injury. Reports of other wars did not separate the surface injury from penetrating injury to the body cavities.

The war wounded were assessed in the operating theatre by the anaesthetist before administering anaesthesia. The familiar ASA classification was adopted in the assessment of the patients than the trauma score. 85% of patients belonged to ASA I and II categories. In the event of mass casualties the normal triage was replaced by military triage, where hopeless patients with multiple injuries were given lowest priority.

Techniques of anaesthesia broadly fall into regional analgesia and general anaesthesia. Regional analgesia was found to be unsuitable in a war situation, because of multiple injuries, the longertime taken to administer and the lack of sterilised disposable administering sets in Jaffna. 25% of the patients were managed with local infiltration analgesia. General anaesthesia can be either total intravenous or inhalational. 80% of the patients in this study received total intravenous anaesthesia. Patients with superficial or limb injuries belonging to the ASA I, II and III categories were given Diazepam or Thiopentone intravenously followed by Ketamine 1mg/kg and 1 mega unit of Penicillin. When the surgery lasted longer than 15 minutes, a repeat bolus dose of Ketamine was given. We found that when potent intravenous analgesia was given, the analgesia was adequate for surgery lasting for 45 minutes. When surgery lasted longer than this inhalational anaesthesia (Halothane and air) was administered.

These patients were not intubated as a routine and we did not encounter any death due to aspiration of gastric contents.

Patients in ASA IV and V categories and those who needed either thoracotomy or laparotomy were intubated using Suxamethonium Chloride. Muscle relaxation was maintained either with Pancuronium or Tubocurarine as no other relaxants were available.

Ketamine was the most used and desired drug in our study. Similar observations have been made in other published reports of war experiences (*4*), (*5*), (*6*). We did not encounter the problems of hallucination with Ketamine, most probably due to prior administration of either Diazepam or Thiopentone.

Penicillin was administered to all patients without a known history of allergy, because of the high risk of tetanus and gangrene following war wounds.

Most frequently used intravenous fluid was Hartmann's solution. Few units of Haemaccell and blood were used as these were in short supply.

Though a continuous infusion of Midazolam, Ketamine and Vecuronium has been advocated by Restall etal (6), we found that this was an inconvenient and impractical situation where resources were severely limited.

There were 19 deaths soon after admission, 6 deaths on the operating table and 56 deaths after surgery. The overall mortality was 3.6%. On the morbidity side, we had 2 cases of gas gangrene, 14 cases of tetanus and had to amputate 155 limbs. Patients who developed tetanus and gas gangrene were those who had received surgical treatment in the field and their admission was delayed due to transport problems. Most of the amputations were done in those who sustained injury from antipersonal mines.

The overall mortality figures for the few wars that have been published in the journals are:

War:		Overall Mortality %
1. British Military Surgery (1945-1985-) (7)		
Malaya (1950-1960)		5.8
Aden (1964-1967)		15.6
2 U.S. Army Data (12)		
Mexican War	1846-1848	15.0
American Civil War	1861-1865	15.0
World War I	1914-1918	8.0
World War II	1942-1945	4.5
Korean War	1950-1953	2.5
Vietnam War	1965-1972	3.6
3. Yom Kippur War 1973 (4)		4.3
4. South Vietnam 1967 (civilian) (8)		4.0
5. Lebanon 1975-1976 (3)		5.2
6. Falklands War 1982 - (A) (5)		1.9
(B) (2) (10)		1.2
7. Afghanistan 1987 (9)		2.8
8. Jaffna 1990		3.6

Internationally accepted yardsticks to evaluate the standard of medical care provided during a war are:

1. Ratio of wounded to killed or died
2. Mortality in the first 24 hours of admission.
3. Mortality after 24 hours of admission
4. Mortality related to head, chest and abdominal injuries.

The ratio of wounded to killed is difficult to determine, and hence not published. It is said that the ratio o wounded to killed cannot be improved beyond 4:1 because of the destructive capability of weapons used in modern warfare.

Table 1 : **MORTALITY RELATED TO SITE OF INJURY**

	WAR	HEAD %	CHEST %	ABD %
1.	Cyprus 1956-1960 *(7)* (British)	56.0	53.0	34.0
2.	U.S. Army *(12)*			
	American Civil War 1861-1865	—	—	90.0
	World War I	40.0	37.0	67.0
	World War II	14.0	10.0	23.0
	Korean War	10.0	8.0	9.0
	Vietnam War	10.0	7.0	9.0
3.	Israel Wars (1973,1982) *(4)* *(11)*	—	—	7r9
4.	Vietnam War (1967) *(8)*	—	—	8.5
5.	Afghanistan (1987) *(9)*	—	12.6	8.6
6.	Jaffna (1990)	95.0	18.0	22.0

It is heartening to note that overall mortality had decreased from 15% to 2%, mortality for head injury from 56% to 10%, for chest injury from 53% to 7% and for abdominal injury from 90% to 8% over the years.

The high mortality for head, chest and abdominal injuries in this study Table 1 was due to the severity of the injury. It is also due to the exclusion of surface injuries of these regions (which were included in the limbs and surface category) in the calculation of mortality figures.

Survival after war injury depends on

1. Prompt and proper application of ABC of basic life support and resuscitation in the field.
2. Application of triage at all points.

3. Quick evacuation to Base Hospital.

4. The number of surgical teams deployed and facilities proved in the Field and Base Hospitals.

5. Morale and psychological attitude of the surgical team.

In conclusion, the training, experience, skill and mental attitude of the medical men play a key role in the outcome, than the availability of advanced technology or eqduipment. The familiarity with a technique and the drugs used is more important to an anaesthetist than the technique or the drugs. This was very evident in this study.

Acknowledgment

My thanks to the Director, Jaffna General Hospital (Teaching) for her permission to publish the data, to my anaesthetic colleagues who maintained the records of these patients inspite of a heavy workload and shortage of stationery items and to my surgical colleagues who cared for these patients under very trying circumstances.

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DIAGNOSIS AND MANAGEMENT OF FUNGAL CORNEAL ULCERS

*Kugathasan S.

Jaffna Medical Journal 1995, **25**, 11-14

Fungal corneal ulcers remain a diagnostic and therapeutic challenge to most ophthalmologists because of two reasons:

1) Its tendency to resemble other types of corneal ulcers.
2) Non-availability of effective ophthalmic antifungal preparations.

Diagnosis of Fungal Corneal Ulcers

This can be achieved by

a) Methodical history taking
b) Proper clinical examination ; and by
c) Microbiological investigation.

History

Fungal corneal ulcers usually follow superficial corneal abrasion.

The traumatising agent may be of plant origin (Tree-twigs, leaves, paddy grain) or of animal origin (cow's tail). Minor trauma with dust particles-due to wind may also cause it.

Epithelial lesion following improperly fitted contact lens or that following dentric ulcer also can get secondarily infected with fungus.

Mis-use of topical antibiotics or corticosteriods for a long time or home remedies (crushed leaves) applied to the eye may also predispose to the development of fungal corneal ulcers.

Eye Surgeon, General Hospital (Teaching) Jaffna.

It is important to be aware of the increased incidence of fungal corneal ulcers during the months of harvest and windy season.

The ulcers are, indolent. slowly progressive and occasionally fulminating.

Clinical Features

On slit-lamp examination several features are typical of fungal corneal ulcers, namely:

a) Eye is white and not very painful unless complicated by secondary bacterial infections or by sub-conjunctival injections.

b) The entire ulcer is elevated above the surrounding cornea (c.f of Bacterial Ulcers-Ulcer Crator.)

c) Thickness of the surrounding cornea increased due to stromal infiltration and oedema,

d) Folds in the descemets membrane in an ulcer are typical of fungal corneal ulcers. This occur even if the ulcer is small and superficial. This is due to displacement of descemets membrane due to increased thickness of the stroma.

e) Greyish white lines will surround the ulcer margin into normal cornea which suggest stromal

infiltration of hyphae, hence the margins are "hyphate" and these branching lines are irregularly placed at the ulcer margin and precede the appearance of satellite lesions. (cf. In bacterial ulcers hyphate lines won't extend beyond the ulcer edge)

f) Hypopyon is common and thick. Sometimes a small ulcer is accompanied by a large hypopyon.

g) Occassionally the ulcer may be surrounded by a ring separated by normal cornea similar to an " Immune-ring ".

Micro Biological Investigation

This consists of

a) direct microscopic examination and

b) culture

of the material obtained by scraping of the ulcers.

Scraping must be done under topical anesthesia with good illumination and magnification preferably under operating microscope or slit lamp to avoid scraping over the intact corneal epithelium.

For scraping, sharp and firm instrument like No 15 bard parker blade must be used. Bacteriological loop, platinum spatula or cottonswab may fail to yield fungus.

Superficial scraping may yield only mucus and it should be discarded. Deep scraping from both the central area of the ulcer and advancing edge must be used for microbiological investigation.

For microscopic examination the material obtained by scraping must be spread on a clean glass slide, a drop or two of 10% KOH must be added to it and covered by a cover slip, and examined under compound microscope.

The purpose of 10% KOH is to dissolve mucus and epithelial cells which facilitates easy identification of fungal hyphae.

Fungal hyphae under microscope appear as double walled, hollow, parallel tubes with or without nucleus at the centre. It must not be confused with artifacts (e.g. cotton fibre) which are singled walled, solid tubes without nucleus and will have tapering edges.

One must also look for whether the hyphae are separate or not. If separate it belongs to higher fungus group and if non-separate lower fungus group.

For culture, Sabaraud's Dextrose Agar (S. D. A.) Corn-Meal Agar (C. M. A.) or Potatoes Dextrose Agar (P. D. A.) can be used. Culture media must be inoculated at the bedside as soon as the materials are taken by scraping to avoid contamination. In my study, I have used only Corn-Meal Agar and Potatoes Dextrose Agar for all cases.

The culture media are preferably kept at room temperature and must be examined daily.

Fungus growth must occur at the site of inoculation, if it occurs elsewhere contamination must be suspected.

If fungus grouth occurs on the first day after inoculation aspergillus must be suspected. No other fungus will grow so fast. Other fungus growth usually appear on the second, third or fourth day after inoculation.

Most of the fungal colonies appear white initially and then their colour changes once the spores are formed except in fusarium which remains white throughout.

Identification of different causative fungi can be made by their characteristic appearance of their spores, Therefore these colonies must be examined without disturbing their spores. This can be done by examining the whole colony under a microscope through transmitted light or ideally by doing slide cultures.

The fungi commonly isolated as the causative agent for fungal corneal ulcers include:

Fusarium
Aspergillus
Drechslera
Curvularia
Cephalo sporium

Management

This consists of medical treatment and surgical measures.

Medical Treatment

Medical treatment of Fungal Corneal ulcers still remains a major problem to us due to non-availability of specific anti-fungal agents. An ideal anti-fungal drug must have the following features:

1) Non-irritant and non-toxio to the eye;
2) To have a wide spectrum againt various fungal species; and
3) Good penetration.

Pimaracin (Natamycin 5% suspension) which claims to have some of these ideal features is not available in Sri Lanka yet. So this situation had led on the trial of many other drugs which claim to have antifungal properties.

In this attempt the following drugs have been tried:

1) Ketokonazole eye drops prepared from oral tablets;
2) Ticonazole (Trosyd) - Antifungal Skin ointment;
3) Miconazole (Daktarin)-Antifungal Skin ointment.

24 Cases of fungal corneal ulcers that were confirmed by microscopic examination and culture studies were taken up for this study. All the patients were treated with 1% Ketokonazole prepared by dissolving one tablet of Ketokonazole ('nizoral') in 20 ml of distilled water hourly in the day time and for the night either

ticonazole (trosyd) or miconazole (daktarin) skin ointment. Various non-specific measures used for the treatment of fungal corneal ulcers include:

1) atropine 1% drops twice daily as a cycloplegic mydriatic to relieve pain resulting from associated iridocyclitis.
2) Acetazolamidle tablet (diamox) 250 mg, 6 hourly to reduce I.O.P for easy penetration of topical medicines.
3) Daily scraping of the ulcer base and edge. This helps to remove the fungus mechanically as well as to facilitate the drug to penetrate deeper tissues with ease.

Once the ulcer shows signs of healing as evidenced by decrease in the thickness of the cornea and disappearance of the descemets folds they can be treated as an O.P.D. patient. Antifungal treatment must be continued for at least 6 weeks. Of the 24 ulcers treated 20 cases healed completely without any complications. Once, the ulcer healed but developed secondary glaucoma for which Trabeculectomy was done.

For one case penetrating keratopla. sty wes done for impending perforation

The other two ulcer cases healed following perforation and became phthisis bulbi.

Surgery

Therapeutic penetrating keratoplasty is at times required in the management of certain fungal corneal ulcers to remove the infectious fungus or antigenic element or both. However, it is advisable to try medical treatment first for a considerable period of time in order to render the fungus nonviable before attempting surgery.

Conclusion

Although fungal corneal ulcers remain a difficult problem requiring prolonged therapy, a newer era has come where the causative fungus can be isolated by culture, antifungal sensitivity can be performed and appropriate antifungal agents can be instituted.

If medical treatment is still unresponsive, they could be treated surgically by performing penetrating keratoplasty with good degree of success.

Acknowledgements

I wish to thank the staff of the eye department for their valuable assistance, to the medical laboratory technologists Mr. Devasagayam , and Mrs. Ganeshan for providing facilities and helping a lot in the mycological work and the medical representatives of the following drug firms for providing ample free medical samples to conduct this study

1) pfizer limited - trosyd skin ointment

2) pettah pharmacy ltd - nizoral tablets and daarin skin ointment

Finally I wish to thank unikco computer centre for typing my manuscript.

MORTALITY FROM CORONARY HEART DISEASE IN THE JAFFNA MUNICIPAL POPULATION

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Summary

An epidemiological analysis of deaths from Coronary Heart Disease (CHD) among the Jaffna Municipal population for the year 1986 is presented. The mortality rate for this year from CHD was 53.3 per 100,000 population. A significantly narrowed male:female ratio of 2.9:1 was observed. 31.7% of deaths occured at home or before reaching hospital. Most number of deaths occured in the 61-70 years age group in both sexes, but among males 74% of deaths occured between 51-70 years whereas among female 81% of deaths occured in the 61-80 year age group. 29.8% died within the first 12 hours of admission to hospital. Informations obtained from relatives of the deceased (response rate 76.2%) and hospital records revealed that 33.3% of patients who died of CHD, did not know that they had CHD before death. 45.5% females had been hypertensives, 33.3% males and 33.3% female had been diabetics and 69.7% of males had been smokers. All the male patients except one, below the age of 55 years who died of CHD, were smokers.

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Introduction

Coronary Heart Disease (CHD) is the leading cause of mortality and morbidity in industrial countries and is emerging as a significant health problem in developing countries too[1]. In Sri Lanka, mortality figures from Registrar Generals' Department shows a steady increase in deaths due to hypertension and CHD. In 1970 it was 9.3 and in 1981 18.4 per 100,000 population.[2] In North Sri Lanka too the morbidity from CHD is considerable as evidenced by a study on the pattern of admission to the University Medical Unit in 1982 which revealed that cardio vascular problems were the commonest indication for admission. CHD was evident in 6.9% of the total admission to the unit in that year[3] and 6.3% of all admissions to the same unit for the period Jan '84 to Dec. '85[4]. The present retrospective study was carried out to determine the mortality rate in the Jaffna Municipal population and to analyse the factors which contributed to CHD in those who died of this condition.

The Jaffna Municipality covers an area of 20.2 Km^2 and has a population of 118,214 as per census of 1981[2]. General Hospital, Jaffna (Teaching) is the only State hospital that is available for this population though there

are 4 private nursing homes with facilities for resident treatment. This region has a satisfactory registration of deaths.

Majority of the people in this area belong to the middle social class and comprise mostly of businessmen, professionals, Government officers and teachers, although there are clusters of under priviledged population too. 59% of the population are Hindus, the rest being Muslims, Roman Catholics and Christians[2]. The literacy rate for Sri Lanka is 86.5% of the population over the age of 10 years.[2] During the last decade people of this area have suffered immense social, economic and political tension as a result of demand for recognition of self rule.

Method

The register of death returns for the year 1986, maintained by the Registrar of deaths, Jaffna, was studied and available details of those whose cause of death was registered as that resulting from CHD and which was certified by a qualified doctor were obtained. The relatives of these deceased were contacted either by post or by a home visit and an interview held. This interview was primarily used to obtain details regarding the health history of the deceased prior to death. It was also used to study the past medical records of the deceased (if any were available with the relatives), to obtain a detail history of events which took place until the death of the deceased, to ascertain the correctness of the report given to the Registrar of deaths and to know the length of time the deceased had lived in that address.

The hospital records of those patients who died in hospital were also studied for details.

Results

The number of deaths from CHD in the Jaffna Municipal area for the year 1986 was 63-giving a mortality rate of 53.3/100,000 population. The national figure recorded by the Registrar General for year 1981, was-18.4 per 100,000 population. The age and sex distribution of those who died of CHD in 1986 is shown in Table 1.

Table 1

Analysis by Age and Sex

Age Groups	Male	Female
41-50	7	2
51-60	13	1
61-70	22	8
71-80	5	5
Total	47	16

47 males and 16 females died of CHD during this period giving a male: female ratio of 2.9:1. Most number of deaths occured in the 61-70 year age group in both sexes. However among the males 74% of deaths occured in 51-70 years age group, where as among females 81% of deaths occured in the 61-80 year group. 20 out of the 63 deaths (31.7%) occured at home or before reaching hospital. The age and sex distribution of those who died at home or before reaching hospital is given in Table 2.

Table 2
Home deaths by Age and Sex

Age	No. of deaths	Sex	
		Female	Male
41-50	1	0	1
51-60	7	1	6
61-70	10	1	9
71-80	2	1	1
Total	20	3	17

Of these 20 cases, the relatives of only 11 cases could be interviewed. The events that led to the death of these 11 cases is given in Table 3.

Table 3
Home Deaths

Case No	Age	Sex	Circumstance
1	59	M	While walking on road, developed severe chest pain and profuse sweating. Died within a short time. He was a known diabetic and a smoker.
2	69	M	Collapsed at home at 5 a.m. Seen by an MOH at home, and died soon after. He was a known patient with diabetes mellitus, hypertension and CHD.
3	70	F	Acute breathlessness at 11.30 p.m. Taken to private hospital but died on the way/soon after arrival. She was a known diabetic.
4	75	F	Known patient with CHD and hypertension. Developed chest pain and collapsed while travelling to consult her doctor.
5	64	M	Developed chest pain and acute breathlessness. Died within a short time. Did not want to enter hospital and was managed by his doctor sister at home. She was a known patient with diabetes mellitus hypertention and CHD.
6	72	F	She acutely developed palpitation and died on the way to hospital. She was a known patient with coronary heart disease and used to smoke cigars.
7	60	F	Known patient with Coronary Heart Disease. Developed chest pain in the early hours of the morning and was seen by a doctor at home. Died before she could be brought to hospital.

8	64	F	Acute onset of breathlessness. Did not want to be taken to hospital. Died at home within 24 hours.
9	54	M	Acute onset of chest pain and was seen by a General Practitioner. Died on the way to hospital. He was known patient with Coronary heart disease and had a past history of myocardial infarction.
10	65	F	A known patient with Diabetes mellitus and hypertension. She developed Left Ventricular Failure and was managed by her General Practitioner at home. She refused to enter hospital. Died 15 days after onset of Left ventricular failure.
11	70	F	She developed acute onset of breathlessness and was treated by her Doctor son. Preferred not to enter hospital and obtained treatment at home.

More detailed information regarding the past health record and personal habits of 48 deceased (F=15 and M=33) could be obtained through an interview with relatives, and from the hospital records. 16 out of 48 patients (33.3%) did not know that they had CHD before death. 17 patients out of the 48 (35.4%) died within the first 24 hours of developing the fatal CHD. Of the 37 admitted to hospital 11(29.8%) died within the first 12 hours of admission.

Tabel 4 shows the established risk factors that were noted in these 48 cases. The cholesterol and lipoprotein status of the cases were not available. In this study, everybody who smoked one or more of any type of tobacco was considered a smoker. Smoking habits had been observed almost exclusively among males, with only 2 females having smoked cigars. All the male patients (11) except one below the age of 55 who died of CHD were smokers. Of these 11, five patients had another known risk factor for CHD besides smoking. 5 out of 15 females (33.3%) and 11 out of 33 males (33.3%) had been established diabetics. 15 out of 33 males (45.5%) and 6 out of 15 females (40%) had been hypertensives. Among those who did not have any of the established risk factors, 6 had a family history of one or more of these factors.

Table 4

Smoking, Hypertension & Diabetes among those who died of CHD

	Total	Sex	
		Male	Female
Smoking			
Cigars	10	8	2
Cigarettes	13	13	—
Beedi	2	2	—
Diabetes	8	6	2
Hypertension	13	10	3
Diabetes and Hypertension	8	5	3
Family History of CHD, Diabetes, Stroke, Hypertension	6	4	2

Discussion

The mortality rate from CHD in Northern Sri Lanka has not been studied and recorded before. A rate of 53.3 per 100,000 population is much higher than the national figure of 18.4 as per census of 1981[2]. This rate is considered the minimum one for the Jaffna Municipal population, as deaths which could have occured due to atypical presentations of CHD and all the sudden deaths had not been taken into this retrospective analysis.

This analysis also reveals a narrowed male:female ratio of 2.9:1. A similar ratio of 2:1 was also observed in the study on the pattern of CHD admission for the year 1984 and 1985 to the University Medical Unit, Jaffna[4]. This is in contrast to the high male:female ratio observed by Nimalasuriya et al (*1971*) in Sri Lanka on a clinico – pathological study [5] Fernando et al (1965) too reported a ratio of 7:1 and also observed that such high ratio was seen in Eastern countries in comparison to that of West where the ratio was much narrower.

The identifiable risk factors among fhe females were hypertension and diabetes mellitus (50%), smoking being almost exclusively a habit of males in this country. Among males, smoking was the most common risk factor (69.7%) followed by hypertension (51.5%). Besides these standard risk factors, the changing politico social events in the North too could have contributed to this higher regional mortality rate from CHD. Jenkins (1976) reviewed the evidence from published research dealing with psychological, social and behavioural factors associated with the rick of CHD and concluded that these factors do play a role in the development of CHD in individuals and societies, besides the standard risk factors.[5] The people of the North Eastern region of this

country have been witnessing a violent political and social change during the last two decades, the change being more rapid since early '80s. This factor has been attributed to a high suicidal rate for this region [7], an increasing number of patients seeking psychiatric help in hospital clinics and had also necessitated in the opening of two psychotherapy centres in the North. The violence had made many families to move out of their habitats, and the inability to interview the relatives of 15 out of 63 (23.8%) deceased for this reason, illustrates the extent of social insecurity which existed in this region. This rapidly changing politico-psycho social events affect both sexes equally, if not the females more, and could have contributed to the narrowed ratio in mortality rate between the sexes.

Conclusion

The analysis has revealed that CHD is emerging as a significant health problem in the North of Sri Lanka. The health sector must recognise this trend and improve facilities in institutions to manage such problems more effectively besides concentrating hard on the implementation of effective primordial preventive measures.

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ABNORMALITIES IN LIPID METABOLISM WITH HEROIN ADDICTION

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Summary

Twenty seven heroin addicts and ten non-addicts were randomly selected from Jaffna Municipality and suburbs. Their mean ages were 26.8 (± 5.5) years and 25.8 (± 8.6) years respectively. Among the 27 addicts 55.6% took heroin intravenously. Serum cholesterol and triacylglycerol levels of the heroin oddicts were also significantly elevated. Body weights and serum protein levels were estimated to assess their nutritional status. The diffrence in serum protein and body weights were statistically not significant. These results indicate that the addicts are not malnourished. Mean blood pressure of heroin addicts and controls was 122 (±10.2) mm Hg/79 (±9.8) mm Hg and 120 mm Hg/80 mm Hg respectively. The results from AIDS diagnostic test showed that none of the heroin addicts had been infected with HIV.

Introduction

Heroin addiction is becoming a serious problem in Sri Lanka as in many other countries. Heroin dependence is commonest among young people. Enforcement statistics indicate that persons most often involved in drug related offences are between 18 and 30 years of age (1). Of the users in Sri Lanka 2.7% had their experience before the age of 12, 13.3% between the ages of 12 and 16 years and the balance 84% after they were 16[1]. The drug is freely available for prices of SLR 300 - 350 per grm(1). Heroin is a narcotic, derived from opium(2). When taken orally, heroin can produce relaxation, euphoria and indifference to pain and stress but not 'rush'(2) When the drug starts to be regularly administered, the addicts develop physical dependence and tolerence. 'Withdrawal syndrome' develops when the drug is stopped.(3) Most of the physical damage is caused by the manner in which the drug is administered (2). Addicts administering heroin intravenously are at high risk of infection with HIV (Human Immune deficiency Virus) because HIV virus is mainly transmitted by sharing of contaminated needles and syringes (4). in New York 45% and in the whole of USA 25% of AIDS victims were intravenous drug abusers.(4,5) In Italy 44% of AIDS cases are drug abusers (6) Among the age group 15 to 35, drug abuse is the leading cause of death.(7) Heroin addicts were also victims with needles remaining in their veins who had died after self-administration of drugs.(7)

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This paper describes the changes in serum lipids of heroin addicts. Further serum protein, body weights and blood pressure were determined to assess their nutritional status. ELISA screening for HIV antibodies was employed to detect the HIV Infection in intravenous drug addicts.

Subjects and Methods

Subjects

Twenty seven heroin addicts and ten non-addicts within the age group of 20-30 years from Jaffna Municipal limits and its suburbs. A questionnaire was prepared and necessary details were collected (Table 1).

Table 1 : Distribution of addicts based on the countries from which they learnt the habit.

Countries	%
Sri Lanka	56.0
India	33.5
Europe	10.5

Analytical Methods

Triacylglycerol [8] cholesterol [9] and protein[10] levels in serum were estimated. Body weight was determined and blood pressure was recorded by mercurical sphygmomanometer.

Enzyme Linked Immunosuorbent Assay (ELISA) was carried out to test for antibodies against HIV by Bacteriology Unit of Central laboratory of VDRL Unit, Department of health, Colombo through the VDRL Unit of Teaching Hospital, Jaffna.

Results and Discussion

Among the 27 subjects, three were married and all the subjects were males. Occurance of divorce was found to be 3.7% (one). Five of the subjects have the habit of alcoholism in addition to drug addiction. Earlier reports state that 11.7% had used alcohol and 9% had used tobacco [1]. The average daily consumption of a heroin dependent is presently in the region of 500mg.[1]

Twelve of the subjects (44%) learned the habit when they were abroad (Table 1). Fifteen of the addicts (55.6%) have taken drug intravenously at least once (Table 2). Two (7.4%)

Table 2 : Mode of heroin intake among the addicts.

Mode of Intake	%
Smoking	14.8
Intravenous	55.6
inhaling	29.6

Two have had multiple sexual contacts with women of AIDS risk group. All fifteen intravenous addicts showed negative results to ELISA screening for HIV antibodies. However this does not rule out the possibility of drug addicts in Jaffna having acquired HIV, since the sample tested for is very small.

Only 14.8% take heroin by smoking alone, 29.6% inhale heroin vapour, meanwhile the intravenous addiction was 55.6% (table 2). These results

indicate that with continuous use of heroin, many of them had become tolerant and had changed the mode of administration from smoking to Intravenous injection. The mean duration of addiction was 4.2 (± 1 7) years. From earlier reports it was found that the route of administration most favoured was by inhalation (87%), while 11% smoked it in cigarettes and the balance 2% had snuffed or injected the heroin (1) The primary source of introduction to this drug in the case of majority of those who are dependent, (80%) was friends. Tourist and drug peddlers were others who were responsible. Curiosity has been one of the major reasons for the first experience with drugs.[1]

Both serum cholesterol and triacylglycerol levels were elevated in heroin addicts. Mean serum cholesterol level of heroin addicts and non-addicts were 425.6 (± 102.8) mg dl.-[1] and 217. (± 36.1) mg dl-1 respectively (Table 3)

Table 3 ; Mean serum cholesterol, triacylglycerol and protein levels in heroin addicts and non-addicts.

Subjects	Cholesterol mg dl-1	Triacylglycerol mg dl-1	Protein g dl-1
Addicts	425.6 (± 102.8)	396.5 (± 244.7)	9.6 (±2 21)
Non-addicts	217.3 (± 36.1)	209-6 (± 177.8)	9.9 (±1.4)

Elevation in serumcholesterol level was statistically significant (P < 0,00 1) . Mean serum triacylglycerol level of heroin addicts was 396.5 (±244.7) mg-1 while that of non-addicts was 209.6 (± 177.8) mg dl-1 (Table 4). This edlevation too was statistically significant (P <0.001). These marked elevations in triacylglycerol and cholesterol levels may be primarily due to heroin This was supported by the serum. protein levels of addicts and non addicts which were 9.9 (± 1 4) g dl- and 9.6 (± 2.2) g dl -1 respectively

Table 4 : Mean age, weight and blood pressure of heroin addicts and non-addicts.

Subjects	Age (In years)	Weight (kg)	Blood pressure SBP/DBP (mm Hg)
Addicts	25 8 (±5.5)	57.0 (±9.8)	121.7 (±10 2) 79.2 (±9.67)
Non addicts	25 8 (±8.6)	59.0 (8.2)	120.2 (±3.6) 80.1 (±2.3)

(Table 3). Difference in mean serum protein levels was not statistically significant ($P < 0.5$). Mean weight of the addicts and non-addicts were 57 (± 9.1) kg and 59 (±8.2) kg respectively (Table 4). The difference was not significant statistically ($P < 0.5$). Both protein level and body weight indicate that the addicts were not malnourished. Hence, factors other than nutrition could be affecting lipid metabolism of the addicts. Possible explanation for these observations is that heroin activates lipolysis in adipose tissue through its metabolite morphine, by increasing CAMP levels either directly or through growth hormone and catecholamine.(11) The increase in CAMP causes the breakdown of stored fat in adipose tissue which results in an increase in serum free fatty acid and glycerol levels. (12) Part of fatty acid entering the liver would have been converted into triacylglycerol and cholesterol leading to their elevation in serum. Hypertriglyceridaemia and hypercholesterolaemia can lead to other complications such as atherosclerosis, bile stones, ketoacidosis etc (12). In contrast o what may be expected due to high concentration of cholesterol, the systolic and diastolic blood pressures were normal, mean being 121.7 (± 10.2) / 79.2 (±9.8) mm Hg respectively (Table 4). This could be due to the short duration of the heroin addiction as the subjects were taking the drug for a mean period of 4.2 (± 1.7) years. None of the subjects had reported possible symptoms and complaints of heart diseases or atherosclerosis. However with continued addiction to heroin these subjects are at risk to heart diseases.

Conclusion

The results indicate that the heroin addicts develop tolerence to the drug with continuous use and start to change their mode of intake from smoking to inhalation and then to intravenous injection. The elevation in serum triacylglycerol and cholesterol level indicates the effect of heroin on lipid metabolism. However the protein metabolism was unaffected. The blood pressure did not alter in heroin addicts significantly. This may be accounted for by their short duration of intake of the drug.

Acknowledgement

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Abstracts of papers read at the

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ENDOSCOPIC EVALUATION OF GASTRO-DUODENAL MUCOSAL CHANGES AND LONG TERM LOW DOSE ASPIRIN THERAPY

Mathialagan R., Fernando M. J.
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It is well recognized that Aspirin in doses necessary to produce analgesia or anti inflammatory effect produces gastroduodanal mucosal lesions. These have been demonstrated in earlier trials and reported in the literature. Non steroidal anti-inflammatory drugs other than Aspirin have also been incriminated and gastroduodenal mucosal lesions induced by these agents have also been described. Long term low dose Aspirin is being used increasingly in different clinical situations such as, in preventing coronary thrombosis, cerebral thrombo embolic disease transient ischaemic attacks, unstable angina and myocardial infarction. So far no study has reported the effects of long term low dose Aspirin on the gastroduodenal mucosa.

We evaluated the endoscopic appearances of the gastroduodenal mucosa in 50 patients taking regular low dose Aspirin for cardiovascular and cerebro vascular diseases.

Six patients (12%) had an endoscopically normal stomach and duodenum. Forty four patients (88%) had evidence of mucosal injury. (Superficial gastritis 58% erosive gastritis 18%, gastric ulcer 14%, duodenal ulcer 4% and duodenitis 2%).

Dyspeptic symptoms were present in 33% of those with completely normal endoscopy and in only 13% of those with abnormal endoscopic findings. Only 3 of the 9 patients with ulcer had dyspeptic symptoms.

Patients on our study group could be divided into 3 categories. Patients from each category were re-examined endoscopically after a follow-up period of 12 months to 18 months.

Endoscopic findings and their clinical relevance is discussed based on our findings.

MANAGEMENT OF RESPIRATORY PARALYSIS DUE TO SNAKE BITE IN A PERIPHERAL HOSPITAL

Sivakumar K.

Snake bite is a major problem in rural or jungle areas and had caused several deaths in the past. In the Northern Province, Kilinochi had recorded a high incidence of snake bites. Respiratory paralysis caused by the neurotoxic component of the snake venom, is an important cause of death, especially in a peripheral unit with limited facilities. This paper is presented to highlight the fact that early admission to Govt. hospital, without seeking the treatment from native physicians, prompt management of respiratory paralysis with intubation and ambu bag ventilation, could prevent such deaths. Early recognition of respiratory paralysis and prompt treatment with intubation and ambu bag ventilation had saved many lives, and made transfers to the General Hospital less frequent for this purpose. The public must be educated regarding the availability of effective treatment for snake bite poisoning and adviced to take patients direct to the Govt. hospitals. Hospitals in the periphery must be provided with equipment such as laryngoscopes, endotracheal tubes and ambu bags and the medical personnel must be well trained in intubation and ventilation in order to reduce death rates from snake bites.

ASSESSMENT OF THE SIGNIFICANCE OF MECONIUM STAINED LIQUOR AMNII AND ITS MANAGEMENT

Vivekanandan K., Nanthakumar B.
Mahadeva J., Gunaratnam M.

Deliveries complicated by meconium stained liquor amnii (MSL) was studied over a six month period. The incidence of (MSL) was 10.9%. There was a 50% increase in perinatal mortality and a three - fold increase in operative deliveries. The overall incidence of still birth and birth asphyxia (SB/BA) was 21.7%. The main associated factors with MSL was consanguinity which occured in one-third of patients and which surprisingly had a relatively good prognosis with a SB/BA rate of 11.6%. When MSL was associated with fetal heart rate abnormalities or preeclampsia / eclampsia the prognosis was poor with SB/BA rates of 57.1% and 40% respectively. Thick meconium itself was associated with a poor prognosis with a SB/BA rate of 43.8%. Management of these patients is discussed.

PLACE OF SORBITRATE IN THE MANAGEMENT OF ALARI SEED (YELLOW OLEANDER) POISONING - AN EXPERIENCE IN THE PERIPHERAL UNIT

Sivakumar K.

Alari seed (Yellow Oleander) is a commonly used substance for suicide in the Northern and Eastern regions of Sri Lanka. It has a cardiotoxin with an effect that is similar to that of digoxin. The presently practiced management of this poisoning include stomach wash, and atropine infusion or bolus injection for sinus bradycardia or heart blocks. Dopamine infusion is tried when the blood pressure starts to drop and external pace maker used for complete heart block or asystole. The experience of the author is that when such a state develops, the prognosis is very poor and the mortality is very high. A new regime, using sorbitrate along with atropine infusion was tried in this condition which apparently has had beneficial effects Discussion will be based on this limited experience and the possible ways by which sorbitrate could help.

A CASE REPORT OF ACUTE FATTYLIVER OF PREGNANCY

Mathialagan R., Fernando M. J,
Jeyasinghe D. S. J. Wijayaratne D. N. Jayasinghe N. S.

Acute fatty liver of pregnancy is a rare disease. Only 100 cases have been reported in the English literature, but it is of interest because of its high fetal and maternal mortality rate. (85 and 75 percent respectively).

We describe what we believe to be the first reported case of acute fatty liver of pregnancy in Sri Lanka though confirmation of this diagnosis cannot be made in our set up due to lack of facilities at present.

The patient is Mrs. P. L. C 20 yr. old housewife from Panadura, was admitted to Sri Jayawardenepura Hospital (SJGH) on 30th of November 1989 because of jaundice and impending labour.

She was well until one week earlier when she developed anorexia, nausea, vomiting and mild fever for which she was warded at B H. Panadura and transferred to SJGH two days later.

On the day of admission, her POA was 37 weeks and 5 days. She was markedly jaundiced, confused and restless. There was no evidence of cutaneous stigmata of chronic liver cell disease. Her first and second trimaster was reported to be uneventful.

Five hours after admission, she vomited fresh blood and developed malena. Asterexis was observed. Her B. P. dropped to 80 mm Hg systolic and haematocrit came down to 20% and

she was transferred to the Intensive Care Unit. On the 2nd day, In hospital she remained confused, agitated and continued to vomit fresh blood. Her urine output was 700 ml. In the first 24 hours. She delivered a still born baby boy followed by severe post partum haemorrhage.

On the 3rd day, In hospital the upper G.I.T. bleeding continued and B. P. dropped further. Bleeding appeared at all skin puncture sites. During the next few days, a low grade fever persisted, but subsequently, patient improved and went home on 28th December 1989.

In summary this 20 yr. old previously healthy young woman during her 3rd trimester of the 1st pregnancy presented with jaundice, GIT bleeding, hepatic and renal failure with evidence of severe DIC.

The details of the investigations performed, management of this patient and the diagnosis of this case is discussed.

EFFECTS OF MILD PHYSICAL ACTIVITY ON WHITE CELL COUNT

Parameswaran S. V., Sivapalan K. Senathirajah S., Thurairajah T.

An experiment was carried out in normal adults to study the effects of mild physical activity such as coming to hospital on a bicycle. The subjects came to the Department of Physiology and rested on a bed for 30 minutes (rest). Then they worked on cycle ergometer (set with a constant mild resistance) at a speed of 10 km/hr for four minutes(E1). After resting for about 20 minutes they worked at a speed of 20 km/hr for four minutes (E2). Total and differential white cell counts were done on capillary blood obtained by finger prick at the end of each procedure.

Mean white cell count at rest was 5853 (S. D. - 905).

The subjects were divided into two groups on the basis of previous training on muscular activity (sports) etc. Subjects with exercise training did not show statistically significant alteration at E1. The increase was statistically significant at E2 mean increase—1038, (S. D.-919) and the difference between E 2 and E 1 also was significant (mean - 950, S. D.-831).

Those who had no exercise training showed a statistically significant reduction at E 1 (mean - 808, S. D. – 796). The difference between rest and E 2 was highly variable ranging from 1350 to 1450. (mean - -100, S. D. - 1179). The difference between E2 and E 1 was also same (mean - 708, S. D. - 886, range from 400 to 2050. The changes in the total count were seen in both lymphocyte and neutrophil counts. In general, the results indicated a reduction at E1 and increase at E2.

We wish to thank the laboratory staff of the Department for technical assistance and the subjects for the help and co-operation given in this work.

EFFECT OF LONG TERM USE OF THERAPEUTIC STEROIDS ON GLUCOSE TOLERANCE

Balasubramaniam K., Nageswaran A.
Mahendran S., Ganeswaran V.

The effect of long-term use of steroids (Prednisolone) on glucose tolerance was carried out on 12 non-diabetic asthmatic patients who have been under steroid therapy for more than one year. The selected subjects had no previous or present history of diabetes mellitus, hyperinsulinism, and hyper function of adrenal cortex. It is noted that they were consuming the drugs during the experimental period also. The mean period of steroid treatment was 3·7 years. Ten non-steroid users from the same age range were considered as controls. The blood sugar was estimated at zero hour and 2h after the glucose load. The administration of this steroid (Prednisolone) led to an increase in the blood sugar level. The mean fasting blood glucose levels of patients and normal subjects were 101.3±24.3 mg/dl and 73±13.7 mg/dl respectively. The values show that there was a significant ($P < 0.01$) elevation in fasting blood glucose level in steroid users. The mean 2h blood glucose levels of patients and normal subjects were 136.6±29.5 mg/dl and 67.7±6.4 mg/dl respectively. These values also show that there was a significant ($P < 00.1$) elevation in 2h blood glucose level in steroid users. The qualitative urine glucose tests showed negative results throughout the test in all the patients and controls. Further studies must be carried out to confirm this observation.

MORTALITY FROM CORONARY HEART DISEASE IN THE JAFFNA MUNICIPAL POPULATION FOR THE YEAR 1989 AND A COMPARISON WITH THAT OF 1986

Nageswaran A , Sivapragasam (Miss) S. Vigneswaran K.

During the year 1989, 51 patients died from coronary heart disease (CHD) in the Jaffna Municipal Area, giving a mortality rate of 48.1 per 100.000 population,in comparison to 58.3 for the year 1986. 7.35% of all deaths (total 693) from Jaffna Municipal Area for the year 1989 was from CHD. Between the ages of 41-70 yrs, 12.4% of deaths among males (20 out of 161) and 10.5% of deaths among females (9 of 86) were due to CHD. A significantly narrowed male female ratio in deaths from CHD was observed in this area. In 1986 it was 2.9:1 and for 1989 1.8:1. Most number of deaths occured in the 61-80 year age group in both sexes (60.6% among males and 66.7% among females), 51.5% of males (17 out of 33) and 22.2% of females (4 out of 18 died at home or before reaching hospital giving an overall non-hospital death rate of

41.2% for the year 1989 in comparison to 31.7% for 1986. Except in one case there had been no hindrance for the transport of patients to hospital. However delay in making decision to take the patient to hospital and the difficulty in finding a hiring car quickly had been the major factors in bringing the patients later to the hospital. Four patients, who had been suffering from CHD for a length of time, had preferred to stay at home during the terminal illness and one patient went home from hospital to die there. In this analysis 12 males (36.4%) collapsed and died within a matter of minutes due to acute chest pain with or without acute breathlessness and among them 10 were smokers. This is not so among females among whom only 3 out of 18 (16.7%) died in such a manner. 57.6% of males had been smokers, many of them smokers of cigar and 27.8% of females too had been smokers of cigar in this series. Diabetes mellitus was an associated illness in 19.6% of patients (in 1986-16.6%) Hypertension was found in 21.6% (27.1% in 1986) and a further 9.8% of patients had both diabetes and hypertension (18.8% in 1986).

A STUDY OF THE FEASIBILITY OF USING SCHOOL TEACHERS TO SCREEN SELECTED HEALTH PROBLEMS AMONG SCHOOL CHILDREN

A Preliminary Report

Sivarajah N., Sivayogan S., Jegatheesan J.,
Manohraan S., Ambalavanar G.

Twenty five school teachers from 14 schools in the Kokuvil - Kondavil Community Health Project Area were provided with a 5 day training to identify and refer common health probelms among school children.

1682 children aged 5-18 years were screened by the teachers. A 10% random sample of children, stratified by schools was re-examined by us to estimate the correctness of the diagnosis made by the teachers.

This paper deals with the data from 7 schools The extent of agreement between the teachers and the authors was found to be high. Reliability varied between 0.7 and 1.0 depending on the Health problem. The sensitivity and specificity of identifying health problems is also discussed in the paper.

The study shows that teachers could be used successfully to identify most of the common defects found among school children.

THE EFFECT OF ORAL CONTRACEPTION ON BIOCHEMICAL PARAMETERS

Balasubramaniam K., Mahendran S Parasuraman V, Pushpakumar P., Ramesh N.

This study was carried out to find out the effect of prolonged usage of oral contraceptive (Microgynon LNG 150/μg: EE 50/μg) on serum cholesterol, HDL cholesterol, blood pressure (both systole&diastole) serum Fe, TIBC and glucose tolerance. 11-15 healthy non-obese,well motivated young women in the age group 19-30 yrs were assigned for this study. They are regular users of oral contraceptives for more than one year. 11-15 women of same age group with the same dietary habits who were non contraceptive users were considered as controls. The mean serum Fe and TIBC levels in oral contraceptive users were found to be 222.2±18 8 μg/dl and 447.12±22.8μ g/dl respectively. In non users, these values were 152.7± 23.9 μg/dl and 349 2±38.6 μg/dl respectively. Statistical analysis showed that this difference is significant ($P < 0.01$). Serum cholesterol and HDL cholesterol levels were measured by WHO method. The mean ratio between total cholesterol and HDL cholesterol for prolonged contraceptive users was 5.2 and for the non users was 3.1. This difference was also statistically significant. The mean blood pressure in users and non users was 126.0 mmHg/35 mmHg/ and 110.1 mmHg/74.6 mmHg respectively. Glucose tolerance test was done on contraceptive users and non users. Both the fasting and 2 hour blood glucose levels were significantly elevated in users than the control. Prolonged usage of oral contraceptives impaired the glucose tolerance.

ANTIBACTERIAL ACTIVITY OF SELECTED PLANT EXTRACTS USED BY AYURVEDIC PHYSICIANS IN JAFFNA

Jacintha Kanthasamy Sherine Subodhini Sabanathan

Eleven plant materials claimed to have antibacterial activity by Ayurvedic physicians were tested, in two concentrations, for their activity against four selected organisms namely Staphylococcus aureus, Escherichia coli, Pseudomonas pyocyanea and Klebsiella aerogenes. The activity was compared with standard antibiotics used in the hospital.

Among the plants tested for antibacterial activity, **Lythraceae alba** (maruthondri) and **Datura albae** (umaththai) showed some activity in normal and double the concentration. **Moringa pteryqosperma** (murungai) and **Ocimum album** (kanjangkoorai) showed activity in normal concentration only and **Sterculia foetida** (poonari) in double the concentration only.

Against Staph aureus, **Lythraceae alba, Datura alba, Moringa pteryqos-perma and Sterculia foetida** showed activity. The activity exhibited by **Datura alba** and **Lythraceae alba was** comparable to Nalidixic acid and penicillin ($P < 0.05$) and less than that of cefuroxime ($P < 0.05$). Against E. Coli, **Lythraceae alba, Sterculia** foetida and **Ocrmum album** exhibited some activity. However their activity were less significant than that of standard antibiotics ($P < 0.05$).

Against Pseudomonas and Klebsiella, only **Lythraceae alba** was found to be active. Its activity in comparison to gentamycin (against Pseudomonas) and cefuroxime, gentamycin and nalidixic acid (against Klebsiella) was however less significant ($P < 0.05$).

The plant materials that showed anti-bacterial activity belong to different families and habitats. Since all these plants were used by Ayurvedic practitioners and as home remedies for infection of urinary tract, respiratory tract and wounds, they cannot be considered merely as disinfectants. This being a preliminary study, further studies could be carried out with the specific extracts of these plants, as there are possibilities of specific chemotherapeutic components occuring in these extracts. Determination of minimum inhibitory concentration (M. I. C) and conducting clinical trials will help in using these plants in human disease.

CHARACTERISTICS OF PATIENTS WHO HAD ACUTE MYOCARDIAL INFARCTION FROM THE JAFFNA MUNICIPAL AREA FOR THE YEAR 1989.

Nageswaran A., Sivapragasam (Miss) S. Shanmugarajah (Miss) H., Vasanthakumar S.

88 patients developed acute myocardial infarction (AMI) during the year 1989 in the Jaffna Municipal Area, giving an (AMI) attack rate of 0.74 per 1000 population. Among them 36 patients (40.9%) had fatal attack. The male:female ratio among those who had such fatal was 1.8:1, where as among the non-fatal AMI this ratio was much wider, 4.8:1. 52.8% of the fatal AMI had a past history of angina or infarct. 60.9% of deaths among males and 50% of deaths among females occured between the ages 51-70 years.

82.7% (43) of non-fatal infarcts occured in males and 69.8% of them were in the 50-69 age group. Only 9 females had non-fatal infarcts during this year and 6 of them were in 60-79 age group. 78.8% of the people who had non-fatal infarct had an educational level of upto grade 10 only and 59.2% were found to fall in social class III and below. 52.9% of non-fatal AMI had been smokers at some stage in their life, and 53.6% of them smoked cigarattes, 14.3% beedi and 32.1% cigars. 85.7%of

such smokers had been smoking for over 15 years. Among those who were abstaining from smoking at the time of developing AMI, only 18.8% had abstained for over 10 years. 81.3% had done so for less than 5 years. 88.5% of non-fatal AMI patients were non vegetarians, 70.6% and 19.6% had been using coconut oil and gingily oil respectively for cooking. Cow's milk was the commonest type of milk consumed 51.1% followed by milk powder (21.3%). Non fat milk was used only by 19.2% of patients. 70.2% of such patients had been consuming only 1 to 2 cups of milk daily and only 14.9% over 3 cups per day. 90.4% had never eaten cheese. 75% never used butter and an equal number had never used margarine too. 35.7% had never eaten eggs and only 36.5% had been eating more than 4 eggs per week. Beef mutton and chicken are the commonest meat eaten and 56.3% eat meat only once a week, 93.8% never more than 3 times per week. 67.4% of patients had been applying gingily oil to the scalp hair. 36.97 % doing so regularly, indicating that this indiginous habit of this population probably has no beneficial effect against CHD. 29.4% of patients had associated diabetes mellitus and 80% of them had been reported to have had satisfactory control before developing AMI. Hypertension was an associated illness in 39.2%. Serum choesterol could be measured only in 65.4% and it was elevated in 43.6% of non fatal AMI patients.

A RETROSPECTIVE STUDY OF PATIENTS WHO PRESENTED WITH EPIGASTRIC PAIN TO THE UNIVERSITY UNIT

Karunanathan V., Manoharan V. Ananthan K , Kumarasamy N.

42 patients with epigastric symptoms were seen at the Professorial (University) surgical clinic from January 1986 to December 1987. These patients formed 40% of the total number of patients with abdominal pain. 28 patients (67%) had only epigastric symtoms. The balance 14 patients had symptoms not confined to the epigastrium. The main symptoms were burning pain and feeling of epigastric fullness. Palpitation was complained of by 8 patients. 80% of the cases were below 50 yrs of age. 46% of patients were relieved sufficiently – to be able to carry on their usual routine life with antacids taken off & on. 5% were completely relieved within 6 months. Barium investigations were possible only on 10 patients, of which 6 did not reveal any definite lesion. 2 had radiological evidence of peptic ulcer. Malignancy of stomach accounted for 6 patients with only palliative surgery was possible.

Conclusion.

Epigastric symptoms are common and many patients had no serious effects even after 5 years of onset of symptoms.

This study has prompted us to take on a prospective study – with ultrasound and gastroscopic investigations – and also better follow up.

ENDOSCOPIC EVALUATION OF UPPER G.I.T SYMPTOMS IN A SURGICAL UNIT TEACHING HOSPITAL, JAFFNA

Pushparajah E. Y., Nanthakumar B., Ganesaratnam M.

Fibroptic Gastro-Duodenoscopies were done in 48 patients, during a period of three months (in one Surgical Unit) at Teaching Hospital, Jaffna.

The indications for Gastro-Duodenoscopy were – Epigastric pain, vomiting Anorexia and Loss of Weight.

Among them 7 patients had Carcinoma of stomach (confirmed by Histology) giving an incidence of 14% – other significant finding was a high incidence of Peptic Ulcer in 15 patients. (30%), of whom 11 patients had Duodenal ulcer and 4 patients had Gastric ulcer. Other findings were Oesophageal Varices and Hiatus Hernia (one patient each). No abnomalities were found in the remaining 50% of patients.

The above study reveals the significance of Endoscopy as an early investigations in patients with upper Gastro – Intestinal symptoms.

MANAGEMENT OF RESPIRATORY PARALYSIS DUE TO ORGANOPHOS PHATE IN A PERIPHERAL HOSPITAL

Sivakumar K., Arulanantham M.A., Gnanaseelan G.

Poisoning due to organophosphate is common. It is commoner in areas where ventilatory facilities are not readily available.

We present our experience with 110 patients.

We wish to emphasise that if the patient is to survive ventilatory assistance should be given in the primary health facility itself.

RETROSPECTIVE PRELIMINARY ANALYSIS OF ANAL CONDITIONS

Karunanathan V, Manoharan V. Ananthan K. Kumarasamy (Miss) N.

A retrospective analysis of 316 patients admitted with anal conditions to University Surgical Unit in 1985 and 1986 was done.

Of 3891 total admissions to this unit during the period, anal conditions constituted 81.2%. The analysis concerned relationship to age, types, associated complications, method of treatment affecting the duration of hospital stay and recurrence.

Of the 316 anal affections 75.3%(238) accounted for haemorrhoids. In this study 55.9% occured in 21–40 years age group. 16% of patients presented with haemorrhoids had haemorrhoidectomy or manual dilatation of anus in the past 5–10 years time.

Of the other anal conditions fissures accounted for 12%; perianal abscesses 4.8%; fistulae 4.4% prolapse of rectum 2.5% and Perianal sinuses 1%. Manual dilatation of anus was done in 225 cases (94.6%) of the 238 patients with haemorrhoids.

13 cases of haemorrhoids underwent haemorrhoidectomy. Operative treatment was done for Perianal abscesses, sinuses and fistulae. Manual dilatation of anus remained as main method of treatment which required minimum theatre time and hospital stay rather than operative procedures. 38% of cases after treatment were able to be followed up at the clinic upto one month. Only 2%presented to the clinics with symptoms. 90% did not return to the clinic.

On the basis of our findings we are starting a prospective study to identify the indications for manual dilatation of anus and the method of selection of cases.

Abstracts of papers read at the

Ninth Annual Scientific Sessions of the Jaffna Medical Association

27 - 29 , August 1990

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STUDY OF PATIENTS WITH BURNS ADMITTED TO GENERAL HOSPITAL (TEACHING) JAFFNA.

Pradeepkumar G

36 cases of burns admitted to the Surgical Wards of G H (T) Jaffna (including Casuality Ward cases) during a period of six months from 10 th of April 1992 were analysed.

Out of 36 cases, 86% were accidental burns. 11% were suicidal. Of the suicidal cases 75 % had psychiatric illnesses, 3 % were as a result of assault.

Of the accidental burns the distribution of flame sclalding and contact burns were 68 %, 29 %, and 3 % respectively. Of the flame burns 90% were due to kerosene oil lamps. Kerosene oil lamps causes more severe burns than jam bottle lamps. None of them were from coconut oil or firewood flame.

97% of burns were below the age 45. Females were more than 50% and had more severe burns than males 23% were below the age of six. In children (64) 34% were due to scalding.

All cases had studied less than grade ten. None of them had knowledge of First Aidfor burns None of the cases were from higher social class groups.

61 % of burns occured while sleeping, playing, filling the lighted lamp with kerosene and improper handling of ' petromax '. Among this 45% occured while sleeping. 97 % of burns were normal people and all of them could have been easily prevented.

The duration of hospitalization for the groups I. II III was 9.2 35.9 and 52 days respectively.

There were two deaths among the accidental burns (mortality rate was 6.5 %). Both cases were due to kerosene oil bottle lamps.

AN ANALIYSIS OF SOLITARY NODULE OF THE THYROID IN JAFFNA

Gnesharatnam M. Kailainathan A.

In this war situation in Jaffna. due to unavailability of facilities most of the time the operations are limited to emergency and semicasualities.

Solitary Nodule of Thyroid has to be considered in our set up as malignancy, unless proved otherwise, since we have no facilities for scanning and for fine needle aspiration cytology.

Most of the patients with solitary nodule are surgical clinic patients. Some of them went to Colombo for further management. Others underwent surgery when Histology was available.

Histology revealed a high incidence of carcinoma. During the period of two years from June 1991 to May 1993. 52 cases of solitary nodule were operated in two Surgical units of GH Jaffna. The incidence of carcinoma was 26.9 % and out of the patients with carcinoma.

28.5% of them presented above the age group of 40 yrs
35.7% presented between 30-39 years
21.4% presented between 20-29 yrs and
14.2% presented below the age of 20 years

According to the histology report among the 52 patients
65.3% were diagnosed as Colloid Adenoma
15.3% were diagnosed as follicular carcinoma
11.5% were diagnosed as Pappillery Carcinoma
3.8 were diagnosed as Hyperplastic Thyroid Tissue and
3.8 were diagnosed as Hashimotos Thyroiditis

AN OUTBREAK OF FOOD POISONING IN JAFFNA

Jayakumaran N

An outbreak of food poisoning due to the consumption of string-hoppers and dhal curry is reported. Patients including 6 children were admitted to medical and paediatric wards of Jaffna General (Teaching) Hospital. Nausea and vomiting were the predominent symptoms. Other symptoms included abdominal discomfort, diarrhoea, head-ache, giddiness and drowsiness. No one died of this acute gastrenteritis. Incriminating item of the food for this acute gastroenteritis is presumed to be the stale dhal curry. In most cases first symptoms appeared 2 hours after the ingestion of stale food

WAR TRAUM IN A CIVILIAN POPULATION

Somasundaram D. J Sivayogan S., Muhundan N.

A study of the types of war stress experienced by a general population and the psycho-social consequences was carried out in the Kokkuvil - Kondavil project area of the Department of Community Medicine. 101 randomly selected civilians were interviewed by trained medical students using a structured stress questionnaire (SIQ) Among the population nearly half had experienced from 5—9 war stresses and a quarter over 10. Sixty four percent had developed recognizable psycho - social sequelae including somatization 42%, P T S D (27%), Anxiety disorder (26%), major depression (25%), hostility (19%), Relationship problems (13%), Alcohol and drug abuse (15%) and functional disability (18%).

PSYCHOLOGICAL CONSEQUENCE OF WAR ON ADOLOSCENTS

Mariyathasan G J, Somasundaram D J Parameswaran S V

Violence of war causes trauma and mental stress, which if neglected will end up in neurotic illnesses. A study was conducted on 200 available adolescents to identify some of the long term effects caused by trauma. Data was collected by using a structured questionare. 97 % of these adolescents had experienced at least one tranmatic event. 88.3 % of them had psychological problems. 68% had somatization. Symptoms of P T S D were found in 49.5% of them

Various categories of psychological disturbances, somatic disoders and prevalent symptoms of P T S D are analysed in this paper.

HEROIN ADDICTIN IN JAFFNA

Vincent F A and Sivarajah N

Forty five heroin dependents living within the Jaffna municipality were interviewed by one of the authors (Vincent F A) during the period December 1988 to December 1989 and again in 1993. The initial subjects were identified at the General Hospital, Jaffna and others detected using the " snowball technique".

The subjects were all males, 18 to 38 years old (mean age 27.3 years). The duration of addiction in all subjects was less than 6 years

26.7% had never gone to school and 51.1% had left school before their GCE (O/L).

70.1% of them started on heroin before they were 24 years old. The youngest was 16 years of age when he started on heroin.

At the time of interview ... 1988, out of the 21 who were married, 15 remained married, 2 were divorced (one was as a result of the addiction and the other was because his wife had another partner) 3 were separated (also because of the addiction and one was a widower (his wife had committed suicide as a result of his addiction).

According to the subjects interviewed, heroin was first introduced into Jaffna in mid 1983. 62.2% had their first introduction to the drug in Jaffna, 35.6% were introduced abroad and one person (2.2%) started using it in Colombo.

33.3% were introduced to the drug by the drug pedlars. 31.1% were introduced by a friend and 33.3% started by tasting on their own. The last group were drug trafficking abroad.

75.6% indicated that they started tasting the drug initially through curiosity.

The usual method of administration was by inhalation of the fumes (64.4%). Another 33.3% used intravenous administration. However, 77.7% had used more than one method. 84.8% used cannabis in addition to heroin.

75% of the subjects have made attempts to abstain and failed. However 26 subjects followed up in 1993 have abstained for a period of about three years.

CHANGES IN ATTITUDES OF MEDICAL UNDERGRADUATES TOWARDS THE COMMUNITY DURING THEIR TRAINING PERIOD

Gadampanathan T

An opinion prevailing in our society is that there is a " bitter transformation " takes place among the medical students while progressing in their undergraduate training. In order to testify the validity of this opinion this study was carried out in 1991 to find out the changes, if any, in the attitudes of medical students towards their community patients, colleagues, University staff family and social matters / problems.

An attitude questionnaire was administered to 193 medical students belonging to four batches including the First & Final year students. Of those responded 92 were males, 94 were females and 7 students did not declare their sex.

The finding shows considerable changes in most of their attitudes. It is surprising that 90% of students regretted for having entered the

Medical Faculty, for which they had competed, strenously. The "Freshers" attributed their inability to cope up with the subject matter, while the seniors attributed 'prolonging of the period of Medical course' as the causes for their regretness.

Nearly two third of the students agree with the public oppinion that " bitter changes " occur in medical students during their undergraduate training and among such students about 60% perceived changes in their own attitudes.

Students are of the view that although the changes occur in all stages of their training it was least during pre-clinical phase and more during the clinical phase.

This study reveals that medical students while entering are more society - oriented and as they progress in their training they gradually lose their ideas and when passing out they become self-centerd, money minded and develop a tendency to leave their country.

A STUDY OF THE NUTRITIONAL STATUS OF CHILDREN IN JAFFNA DISTRICT

Sivarajah N

A random sample of 2045 children 0-36 months old, living in Refugee Camps & villages in the Jaffna district were examined for evidence of malnutrition using Anthropometric measurements, and limited clinical examination for Protein Energy Malnutrition (P E M) avitaminosis and anaemia. The response rate was 93.5%.

The percentage of children suffering from PEM was as follows :

Low wt/ht (below –2 SD of median of reft population	— 18.9 %
Low wt/Age (below –2 SD of median of ref. population	— 31.4 %
Low wt/age (- do -)	— 40.0 %

The degree of undernutrition increased steadily after the first birthday, & also with the duration of displacement.

There was generally a slight higher prevalence of undernutrition among children in refugee camps. The children in villages displaced or not, showed the same degree of prevalence of chronic undernutrition. The percentage suffering from acute undernutrition was slightly higher among the displaced children than among those living in the villages.

The degree of undernutrition was highest among children whose parents had no schooling. At the clinical examination, 145 children (8.07%) with moderate to severe marasmus and kwashioker were detected.

Also detected at the Clinical Examinations were :

Bitot's spots	— (12.1%)
Corneal Ulcers	— (one child)
Night Blindness	— (0.6%)
Toad skin	— (1.8%)
Angular stomatitis	— (9.1%) and
Pale tongue	— (21.1%)

The percentage of undernutrition among Low Birth Weight children was twice as much as among children over 2500g at birth. It is noticed that although the degree of undernutrition is not alarmingly high, the prevalence has increased since the last Nutritional Survey done in Jaffna in 1975 / 76.

WAR STRESS AND PSYCHOSOCIAL PROBLEMS IN OPD ATTENDERS AT JAFFNA

Somasundaram D. J., Prabaharan S., Sivayokan S. Somasundaram S.

A study of the types of stresses and their psychosocial sequelae in those coming for treatment at the Out Patient Department, General Hospital Jaffna and District Hospital Tellipallai in Feb. 1991 revealed considerable similarities in the two populations. A random sample of 36 subjects at G. H. Jaffna and 32 at DH Tellipallai attending the OPD on a particular day were administered the Stress Impact Questionnaire. The patients were on the average slightly older at G. H. Jaffna, 50% belonging to the 25–44 age group. In this sample the sex ratio was equal at G.H. Jaffna while females predominated at D. H. Tellipallai. The majority belonged to the lower social class with 50% receiving less than 1000 rupees income per month. Indirect stresses due to war, like displacement (68%), unemployment (55%), economic difficulties (84%). and lack of food (68%) were very common. Of the direct war, stresses, 25% had been detained, while 23% had been assaulted and 7% tortured. Thirty percent had experienced direct bombing, shelling or gunfire. Death of relations and friends (45%) and damage or loss of property (54%) were also common. There was considerable somatization (56.9%), Usually coexistant with mild organic illness. Forty two percent had Post Traumatic Stress Disorders. Anxiety (47.69%) and Depression (35.3%) were also found. Altogether (81.5%) had identifiable psychosocial problems. Somatic

and Psychosocial treatment in the form of counselling, relaxation exercises and directions for economic or rehabilitation assistance will be of immence benefit for the patients and in the long term, reduce the work load of the staff and need for drugs.

DISGNOSIS AND MANAGEMENT OF FUNGAL CORNEAL ULCER

Kugathasan S.

If untreated, corneal ulcer is a blinding disease. A healthy cornea, the 1st and the most important refractive medium, prevents infection and ulceration. Small corneal abrasion is sufficient for infection to set in. Corneal ulcers are broadly divided into:

1. Bacterial 2. Fungal 3 Viral

The management of fungal corneal ulcers remain a diagnostic and therapeutic challenge as it resembles other type of corneal ulcers and due to non availability of effective antifungal preparations.

Diagnosis of Corneal Ulcers is by way of

a) Proper History
b) Clinical Examinations
c) Michrobiological Examinations

Clinical examinations sometime reveal the diagnosis,
(i.e the difference between Bacterial Ulcer & Fungal Ulcer)

Microbiological examinations require the
skill work of the examiner is taking sample by scrapping the ulcers : for Direct microscopy and for culture which is for identification & antifungal consitivity tests

Management
1) Medical Therapy
2) Surgical

Medical Therapy of fungal corneal ulcers involves the topical application of

a) Antifungal Drugs
b) Plus G atropine 1% daily or bd to cause cyclopegia
c) Oral acetazoleamide (Diamox) 250mg bd to reduce the intraoccular tension

Once there is a sign of improvement the patient can be managed at Clinic. Antifungal therapy to be continued for six weeks or more.

Surgical Management

1) After adequate medical therapy where the ulcer is not healing keratoplasty is done.
2) In certain cases to prevent secondary glaucoma trabeculectomy is done

A study was done by the author on 24 cases and he found success in 20 cases.

One case healed with secondary glaucoma. Trabeculectomy was done. In the other case keratoplasty done & the other two cases ended up in perforation resulting in soft eye.

Conclusions :

Although fungal corneal ulcers remain a difficult problem, requiring **prolonged therapy**. Now the causative fungus can be identified by culture and antifungal sensitvity can be performed & antifungal agent can be instituted. If medical treatment is still unresponsive they could be treated surgically by performing penerating keratoplasty with good degree of success.

EFFECTIVENESS OF A NUTRITION REHABILITATION CENTRE

Sivarajah N.

In an attempt to provide Institutional therapeutic feeding for severely malnourished children a Nutrition Rehabilitation Centre (NRC) was started in October 1992.

This study covers 73 malnourished children who were discharged from the NRC during the first six months of its existence.

79.5% of the children admitted were 2 years old or less. 95.9% of those admitted were below -2 SD of the median weight for age, of the NCHS/ WHO reference population. 75.3% were chronically malnourished (height for age below -2 SD of the median height for age of the NCHS / WHO reference population). 65.8% were acutely malnourished (weight for height below -2 SD of the median weight for height of the NCHS/WHO reference population).

The mean duration of stay was 27.6% days (median 19.5 days). The range was 4 - 108 days.

54.8% of the children showed improvement as regards weight for height and very poor improvement as regards height for age and weight or age.

The study points to the fact that NRC are more beneficial in the case of acutely malnourished children than the chronically malnourished ones.

EFFECT OF CIGAR SMOKING ON URINARY CALCIUM, ASCORBIC ACID AND CREATINE LEVELS IN POST MENOPAUSAL WOMEN

Janaki P. Arasaratnam V., Mahendran S., and Balasubramanium K.

Department of Biochemistry, Faculty of Medicine, University of Jaffna

In Jaffna, especially older women smoke cigars daily. To elucidate the effect of cigar smoking on the above mentioned parameters, studies were carried out in 40 healthy post menopausal woman in the age of 50-70 years. They were grouped into smokers (20) and nonsmokers (20). The non smokers were treated as controls.

Urinary calcium level was measured by orthocresopthalin complexone (CPC) method. A significant increase was observed in urinary calcium excretion in smokers than controls.

Urinary level of ascorbic acid was measured by DCPIP method. Urinary excretion of ascorbic acid in smokers was less than that of non smokers among post menopausal woman. The difference was statistically significant.

Urine creatinine level was measured by alkaline picrate method. The urinary calcium level of smokers was significantly higher than non smokers.

EFFECTS OF BEEDI SMOKING ON VARIOUS BIOCHEMICAL PARAMETERS

Rajendra S, Mahendra S., Arasaratnam V. and Balasubramanium K.

The studies were carried out in a group of individuals (30 subjects) who were in the age group of 30—50 years. The subjects were then grouped into three (non smokers (10), mild smokers (10) and heavy sm kers (10) and the serum billruvin serin protein plasma fibrinogen, serum billrubin serum proteinplasma fibrinogen, serum ascorbiv acid, SGOT, SGPT levels and urinary excretion of creatine and creatinine levels were measured in all three groups Effects of beedi smoking on glucose tolerance was also investigated

Total serum bilirubin level was measured by Vandan berg method. The serum bilirubin level was significantly increased in smokers than in non smokers. " t " test shows that there was a significant reduction in serum protein level in smokers when compared with non smokers. When the number of beedies per day was increased, the plasma fibrinogen concentration was increased.

Serum ascorbic acid level wae measured using DCPIP method. In smokers there was a signlficant

reduction observed in serum ascorbic acid level. SGOT and SGPT levels were measured by colorimetic method. In smokers, there was no significant elevcation in SGPT level. The urinary excretion of creatine and creatinine levels were significantly increased in smokers than non smokers. But the volume or urine excreted by non smokers was significantly higher than smokers.

Glucose Tolerance Test (GTT) was carried out in all the subject.s The glucose tolerance was significantly diminished in smokers than non smokers. In addition, there was a slight elevation observed in the mean value of fasting blood glucose level of Beedi smokers than controls.

ANALYSIS OF CARCINOMA OF THYROID GLAND IN JAFFNA

Kailainathan A.

Carcinoma of Thyroid is usually suspected whenever there is rapid enlargement of goitre, obstructive symptoms or presents a solitary nodule.

The indication for surgery in Jaffna is suspicion of malignancy & obstructive symtoms as routine operations are not done due to the war situation.

During the period of two years from June 1991, 98 cases underwent surgery for thyroid in two Surgical Units of Teaching Hospital, Jaffna.

Twenty cases turned out to be malignant. Out of 20 cases 14 were operated for solitary nodule, three cases with diffuse goitre and three cases with multi nodular goitre.

Cases other than solitary nodule the indication for surgery were rapid, enlargement ulceration with bleeding and obstructive symtoms.

Highest incidence of carcinorma of 35% was found within the age group of 30-40 years, when the presentation is considered:

70% of them presented with solitary nodule
10% with obstructive symptoms
20% with rapid enlargement
10% with ulceration & bleeding

Histology revealed in

50% of cases Follicular carcinoma
40% of cases Pappillary carcinoma &
10% of cases with Anaplastic carcinoma
15% of cases Hyperthyroidism was noted
15% of cases Lymph node enlargement was found

lymph node enlargement is not a prominent feature in malignancy & toxic symptoms does not exclude malignacy in Thyroid Diseases.

AN ANALYSIS OF 223 UPPER G I ENDOSCOPIES DURING 9 MONTHS AT G H JAFFNA

Ganesharatnam M

A total of 223 Fibreoptic oesophagogastro duodenoscopies were performed by one surgeon at GH Jaffna during a period of 9 months from 1.11.1992

Only 26.4% were negative and a high incidence of oesophageal carcinoma (22.4%) was found. Reflux oesophagiris and hiatus hernia accounted for about 25% of the endoscopies. Duodenal Ulcer & duodenitis were found in 14% and gastric ulcer and carcinoma accounted only for 5% of cases. The incidence of oesophageal varices was low (5%)

POST TRAUMATIC RESPONSES TO AERIAL BOMBING

Somasundaram J. D. Sriranganathan S

A Refugee population exposed to aerial bombing was assessed for psychosocial sequelae after one month. Seventy percent had an immediate but transient stress reaction. Subsequently post Traumatic Stress Disorder, Anxiety and symptoms of Depression and Somatization were found to be common. The study suggested part of this response can be considered as manifestation of a natural attempt to cope with a traumatizing experience.

A STUDY OF PSYCHOLOGICAL CONSEQUENCES OF TRAUMATIC STRESS IN SCHOOL CHILDREN UNDER 12 YEARS

Arunakirinathan T., Sasikanthan A., Sivashankar R., Somasundaram D. J.

Fifteen schools in the Vaddukoddai cluster of the Pandatharippu education division was taken for this study programme. A stratified random sample of 208 permanant students from the total of 3,210, and 104 displaced students from a total of 875 were selected for participation in this study.

The parents and teachers were interviewed by using a standardized questionnaire, the Child Stress Questionnaire (C. S Q) by trained personel.

The common stresses found in children were malnutrition and poverty, ill health, injury & disability loss and

bereavement, displacement, witnessing, experiencing and participating in violence, educational disturbances etc.

The manifestations of trauma like sleep disturbances(77% had at least one disturbance) separation anxiety (46%), depressive symptoms (at least one symptoms was present in 75%)cognitive impairment (77%) and several others were observed in the students.

From the results of this study it is recommended that the teachers should be trained in basic counselling and other forms of psychological management.

POINT OF VIEW

THE RISING CAESARIAN SECTION RATE

Gunaratnam M.

Jaffna Medical Journal 1995, **25**, *49-51*

Fifty years ago more than 95% of pregnant women delivered vaginally; less than 5% had Caesarian Section (CS). Since then CS has been rising steadily not only in this country but all over the world. The present CS rate at General Hospital, Jaffna is about 11.5%.

Normal vaginal delivery (NVD) is he ideal form of delivery as it implies, a healthy mother and a healthy baby It is safer, cheaper and needs much less resources than CS. Unlike CS it improves the prognosis for further child bearing. It thus follows that whenever possible, a NVD should be the aim of every obstetrician.

Nutrition, education and obstetric care has been improving over the years. Pregnant women and their fetuses should therefore enter labour in a much better condition than they did 50 years ago. One would therefore expect more NVD than CS. why then is the CS rate increasing?

Broadly CS' s are done for maternal indications, fetal indications or for abnormalities of labour.

Maternal indications for the CS have been the same over the years but a progressively larger number of patients are now presenting in labour with a previous CS scar. Fear of scar rupture and elective repeat section is one of the main causes for the rising CS rate in USA. The vast majority of patients with a previous lower segment scar can be allowed a trial of labour and with an adequate trial about 75% of them can have a vaginal delivery. Further limiting the number of primary section for strict indications will result in fewer numbers presenting with a previous scar. Thus repeat sections should result in only a small rise in theCSrate.

Fetal indications for CS too have not changed except for the delivery of Very Low Birth Weight (VLBW= <1500 G fetuses and fetuses presenting by the breech. VIBW fetuses which were once considered non viable are now viable because of advances in neonatal care. These fetuses withstand the stress of labour poorly, especially with premature or early rupture of the membranes and are better delivered by CS in Institution where Neonatal Intensive Care Units are available. CS has been increasingly used in the delivery of breech presentations. Certainly some breech presentations are best delivered by CS but the majority can have a safe vaginal delivery. The number of breech presentations can be reduced by external cephalic version. Continuous Fetal Heart Rate (FHR) monitoring will detect more FHR abnormalities than intermittent auscultation but

* *Resident Obstessicion*
General Hospital (Teaching) Jaffna

fetal blood sampling (FBS) would exclude fetal distress in many of these abnomalities. So advances in technology should not cause an increase in the CS rate for fetal distress. Fetal indications will therefore contribute to only a small rise in the CS rate.

Abnomal labour is better understood and treated now than it was 50 years ago. The majority of abnormalities can be prevented or corrected so that there should be a lower number of CS for this reason. The small increase in the CS rate for maternal and fetal indications will be counterbalanced by the decreased rate for normal labour. The improved general health of the gravida too should decrease the rate so that the overall rate of CS should be about the same or less. Obstetric indication thus do not appear to be the cause for the rising CS rate. This is supported by the CS rate in one of the obstetric units at the General Hospital, Jaffna managed by a Senior obstetrician (now retired) where the CS rate between 1984 and 1989 was always below 5%.

In my view the rising CS rate is due to 5 interrelated factors :

1. Increased safety and simplicity of the operation.
2. Fear of still birth or severely asphyxiated baby.
3. Inappropriate management of labour.
4. Obstetrician's interest.
5. Patient's request.

Fifty year ago CS itself carried a mortality of over 1%. Better anaesthesia, free availability of blood, potent anti-biotics and better pre and post operative care has reduced the mortality to about 0.1%. In developed countries it is even less. Still normal vaginal delivery is safer than CS so that increased safety of the operation should not be an indication for CS.

CS is technically a simple operation. The decision to operate on the other hand, needs all the knowledge and experience of the obstetrician. Because of the shortage of obstetricians in Bangaladesh nurses and midwives have been trained to perform CS. The safety and symplicity of the operation has resulted in CS being performed for minor and vague indications.

Fear of still birth or a severely asphyxiated baby is the cause of many unnecessary CS. Often perfectly normal pregnant women with perfectly normal fetuses have elective CS for indication such as bad obstetric history, precious baby, elderly primigravida etc. However, elective CS too can kill babies. For a normal fetus, normal labour and delivery is the best as the stress of labour adapts the fetus to extrauterine life. Obstetricians are supposed to remove the fear of labour from their patients to break the vicious circle (Fear —> Tension —> Pain —> Fear) which adversely effects labour. They however, submit themselves to the vicious circle of (fear —> intervention —> still birth

—> fear) which adversely affects them and their patients. Rational treatment based on sound knowledge gives the best results and not irrational treatment based on fears.

Inappropriate management of labour involves both intervention when no intervention was required and non intervention when intervention was indicated. Childbirth is a normal physiological process vital for the survival of the species. Nature is generally correct but shows wide variations. Only occasionally does it go wrong and create problems. More often problems are created because we fail to understand nature and its diverseness and interfere creating complications. Many unnecessary CS are performed because normal labour and normal FHR patterns are wrongly considered abnormal. Failure to treat correctable abnormalities also result in unnecessary CS.

CS has many advantages over vaginal delivery for the obstetrician. It saves time, brings more money, maintains reputation and avoids litigation. Though these should not affect patient management they certainly do and increase the CS rate.

Some patients fear labour and request elective CS. Some obstetricians without explaining to the patients the advantages of a normal vaginal delivery and removing their fear accede to their request and perform CS. I believe that if obstetricians act conscientiously and fearlessly and continue their medical education, the trend in the rise of the CS rate can be halted or even reversed.

Reference

Truth and logic need no references. However, what is truth today may not be a truth tomorrow as the Universe is constantly changing.

CASE REPORT

A CASE OF AIDS IN JAFFNA

*Nageswaran A.

The first patient in Jaffna with Acquired Immune Deficiency Syndrome (AIDS) has been reported.

This patient had spent 6 years in Uganda, a country where AIDS is endemic. He decided to come back to Sri Lanka in April '88 when anti-malarial treatment for his intermittent fever since July '87 was inefective. He had started losing weight since then. Although, in retrospect, he was suffering from clinical AIDS since July '87, the diagnosis was not suspected in Uganda as well as in Colombo where he again presented for fever. In September 1988 when he presented to General Hospital, Jaffna (Teaching), he had intermittent fever, and painful throat due to oral thrush. The general emaciated appearance of the patient, the presence of oral and pharyngeal thrush in a 44 yr old man, he long duration of fever and his being to Uganda, made the possibility of AIDS very likely. The diagnosis was later confirmed by serological methods in Colombo.

*. *formerly Senior Lecturer in Medicine University of Jaffna*

While in the ward, the patient gradually developed systemic fungal infection, severe wasting of muscles, ulceration in genital areas, intractable diarrhoea and in late stages CNS infection as well. He succumbed to generalised infection which resulted from the immune deficiency, three weeks after his admission.

The press report of four Tamil refugees found to have serological AIDS in Tamil Nadu have come to Jaffna, give more concern to the Health authorities in the region.

Comments

Large number of Tamils from Sri-Lanka are living in countries where AIDS has been reported. Individuals who contacted AIDS in such countries may first present to health personnel here with symptoms of AIDS or may even come to spend the last few months of their lives with their families after the diagnosis of AIDS in the host country.

It, therefore, becomes imperative that we be aware of the clinical features of AIDS and to make sure to obtain travel history from every patient we see.

An Appreciation

Dr. J. P. C Philips

The death of Dr. J.P.C. Philips at a comparative early age of 59 was a rude shock to many in Jaffna and a loss to the Tamil community. He started life from humble beginnings and ended as a well known personality in Medical educational, social, religious activities and in Sports. The Government conferred on him the title of " Justice of the Peace " in recognition of his noble deeds to the Public.

In Private Medical Practice "Philips" had become a household name in many a home in Jaffna. In addition to his busy medical practice, he was Chairman of the Jaffna hospital' Advisary Committee for some years. He was also a life member of the Jaffna Medical Association. He was one of the key members of the Jaffna Cancer Society and was responsible for setting up a Cancer Treatment Centre at Tellippallai. Dr. Philips was the Secretary of the North Lanka College of Medical Practitioners which was instrumental in the establishment and management of the North Lanka Medical College. This College was Incorporated by a Special Act in Parliament in 1986 mainly due to the efforts of Dr. Philips.

In the field of sports, Dr. Philips gave new life to Foot-ball and Cricket in Jaffna. He organised systematic training for Foot-ball Refrees and Cricket Umpires.

In the field of education the Patrician Institute of Higher Studies and Patrician Industrial Institute are monuments to his memory. He was responsible for revitalising the O.B.A. of his Alma Mater St. Patricks College, Jaffna and was Senior Vice Presiden. until his demise. The " Patrician Sunt shine " the College publication was founded by him in 1986.

In the field of Religious activities he was President of the Laity of the Jaffna Diocese for many years. He contributed immensely for the completion of St. Mary's Cathedral building. He was a practicing Catholic and the Rosary was his Forte.

He was also President of the Thirunelvely Vel. Ananthan Dance Association and contfibuted his share in the promotion of Fine Arts and Culture.

No person who went for help to D. Philips returned empty handed – A man of few words but with a good heart.

The secret of his success in life was that he was a good organiser, a go – getter and would not accept " No " for an answer.

May his soul find Refuge in the feet of Lord Jesus.

V. Yoganathna

An Appreciation

Dr. S. Sabaratnam

25 – 12 – 23 — 16 - 06 - 90

The unfortunate death of Dr. S Sabaratnam as a result of military operation on the morning of Saturday the 16th of June, 1990 has caused a void among the social organizations in Jaffna town. Dr. S. Sabaratnam died at the age of sixtysix.

Born on 25.12.1923, Dr. Sabaratnam had his primary education in Vembady Girls' High School and Jaffna Central College. He had his secondary education at St. Joseph's College, Colombo. He later obtained his M.B.B.S. (Ceylon) and D.T.M.H. (Colombo). He, as is customary for the young Medical Graduates, worked in various Government Hospitals including Wariapola, Pungudutivu and Kopay where he made an indelible mark as a popular doctor. He retired from Government Services and started his own Vembadi Polyclinic where he worked for about 30 years till his tragic death. He was a lovable humble doctor dedicated to service and always unassuming.

Dr. Sabaratnam, in addition to being a General Medical Practitioner was also the medical Officer for the Sri Lanka Transport Board for the Northern Region in which capacity he worked till his death. Dr. Sabaratnam was also member and later Vice Chairman of the Hospital Advisory Committee of the Jaffna General Hospital (Teaching). He was a member of the College of General Practitioners (Jaffna Chapter) and later the member and Vice President of the North Lanka College of Medical Practitioners which was formed for the establishment of North Lanka Medical College. He was also a member of the Hindu Board of Education which manages the Muthuthamby Childrens' Home at Thirunelvely. He also volunteered to work as the Medical officer and offered his services once a week to the 225 inmates of this institution. He was also an active member of the Northern Province Cancer Society. He was also a member of the Lions Club of Jaffna for 16 years until his death and was its seventh President. During his time as President of the Club, he was responsible for starting the Uthavumkarangal Project at Cheshire Home, at the Kilner College building in Jaffna which provides

all facilities to disabled people by maintaining a Hostel. He was also responsible for the establishment of the Cancer treatment Centre at General Hospital Jaffna which was visited by a Consultant Radiotherapist once a fortnight. The Lions Club of Jaffna during his period as President contributed Rs. 75,000/- towards the building of a Cancer Treatment Centre at Base Hospital Tellipalai. The Lions Clubs International recognised his services and he won several awards both internationally and nationally.

Married to Saraswathy was blessed with two sons and two daughters. He had to live a lonely life since 1984 as all the members of his family had left to reside in different places due to the conditions prevailing in this part of the country. This change in life style did not deter him from his service to the public till the unfortunate death struct him.

May his soul rest in peace.

Dr. V. Yoganathan

An Appreciation

Dr. S. Ponnampalam FRCS

Consultant Surgeon

GH JAFFNA 1975 – 1994

All in Jaffna grieve the death of Dr. Ponnampalam in late 1994. His demise at this vital time is an irreplaceable loss. He was a live wire to the Surgical Unit and worked very hard in spite of his illness. In addition to his clinical work he was a keen teacher and guided the medical students in order to make them good doctors. During the periods of crises in Jaffna, he was a moral strength to the younger doctors and the staff.

He was born in Kollankallatty and was educated at Mahajana College. He graduated from Colombo Medical School, served in various parts of the Country and his final appointment was at Teaching Hospital, Jaffna as Surgeon.

All of us know of him as a dedicated worker.

It will not be an exaggeration if it is said that he was one of the few doctors who were so dedicated to work that even on his wedding day he worked after attending to the religious ceremony while on short leave.

He is survived by his wife and two children.

Dr. M. Ganesaratnam
Surgeon

Dr. S. Anantharajah
Pysician

An Appriciation

Prof. Vanniasegaram Karunanathan (Karu)

(29-09-1931 — 21-03-1993)

Within three years we have lost three Surgeons in Jaffna, Dr. V. Krishnaraja, Dr. S. Ponnambalam and Prof. Karunanathan, all of them brilliant Surgeons and who served us in times of great need.

It is my pleasant as well as sorrowful task to write a short memoir of Prof. Vanniasegaram Karunanathan in this journal.

He was Professor of Surgery at the Faculty of Medicine, Jaffna since 1981 until his death in 1993. In fact the first professor,as the one appointed before him never assumed office. It was he who originated the Faculty's academic curriculum in surgery. He was a distinguished scholar, an eminent surgeon, teacher with imagination and an admirable advisor to his colleagues, for whom he was affectionately"KARU".

Prof. Karunanathan graduated in 1955 from the University of Colombo and obtained his FRCS (Edin) in 1961. He was Consultant Surgeon in many parts of the Island, Trincomalee, Galle and Kandy before coming to Jaffna His special interests were head injury, thyroid, peptic ulcer and gall bladder surgery. He actively participated in clinical society meetings and was president of these societies at Galle and Kandy.

Karu came from a distinguished family of doctors - uncles, cousins, brothers-in-law etc. His father was a well known strict disciplinarian Superintendent of Health Services Dr. C. M. Vanniasegaram. He was strict even at home, and wished to control his eldest son even in adult life. He sent his son to Uduvil Girls School, St. John's College, Jaffna, Hartley College, St. Joseph's College, Colombo and Royal College, Colombo.

It was at Royal College, as far back as 1950 in the HSC class my friendship started with Karu, a friendship of 43 years! At College we moved together as we had a common love - Tamil Literature. We had both got distinctions in " Advanced Tamil " in the SSC examination, he at Hartley and I at St. Joseph's. At that age you can imagine he looked a girl and was the heroine in the drama we produced for the Tamil Society Funds. It was 'Kannan Koothau ' by Prof. Kanapathipillai. I was her father. At the Medical College we were together. This journal cannot afford pages for details of that life.

Our batch, after internship and two years of service was sent for 2 years compulsary health work in 1958. Karu went to Chilaw and I to Nawalapitiya. His health Unit won the Michael Gunaratne Health shield for best Health Week Celebration in 1959 and my unit in 1960. It was said that it was the first time that units won these these coveted prizes. Karu kept his community consciousness throughout his life when dealing with surgical patients.

May be, few know him as a religious man, strictly adhearing to rites on special religious days which included death anniversary ofthe parents. But any day, starts after ablutions with a wisp of " Thiru Neeru " on his broad forehead, and a few seconds of sacred silence. After that it was mainly service with Surgery. His relaxation was conversations with friends who loved his wit and humour which he enhanced with a deliberate slow habit of speech.

Since 1983 life was never normal in Jaffna. But Karu, with others adjusted and adapted to the circumstances at home, hospital and Faculty of Medicine. He was a member of several sub-committees of the Faculty and was an elected member of the University Council. He was president of the Faculty of Medicine Teachers Association. In the Post Graduate Institute of Medicine, Colombo, he was a member of the Boards of Study in Surgery and Otolaryngology. He was a member of the Sri Lanka Medical Council.

However, during the intense attacks by the Sri Lankan army and the Indian Peace Keeping Force, his health was affected. He was in and out of the I.C U. for heart ailments. I know of times when he would check his own pulse and decide to enter the I.C.U. Similarly he would leave the ICU and take ward classes to students.

The stay at Manipay as refugee, when the Jaffna Hospital itself took asylum, was a breaking point in his health. He never recovered fully from that time, Especially when his green car 9 Sri 5590 was bullet ridden on 22 October 1987 when it was parked in the Jaffna Hospital premises.

Karu went to Colombo on sabbatical leave, and also visited Papua New Guinea. About six montha before his death I met him at his home in Colombo. He showed me several feet of ECG tracings. I have long forgotton ECGs, but though I could identify a normal ECG. He told me " Siva, you cannot find anything normal in what you have " with the usual staccato style.

Karu always wanted to come back to Jaffna to care for his patients and guide his students and be with his friends. His earthly heart and the heart of the soul worked in opposite ways, and he died, leaving his wife Kamalawathy, his son Dr. Vannikumar his daughter Rohini and all of us.

Prof. C. Sivagnanasundram
Professor Emeritus

Advertisement

FUNGAL INFECTIONS & AGEING OF THE SKIN

Professor Albert Kligman of the Department of Dermatology, University of Pensylvania, Philadelphia, speaks to "The News" on Fungal Infections and Ageing of the skin Given below are a few excerpts.

Dr. Klingman, how big a proplem are fungal skin infections ?

It varies greatly from area to area. Fungi, are tropical organisms which like wet skin and environments where there is a lot of sun and moisture. In cooler and drier climates, fungal infections are practically non-existent. If you were a mycologist in Alaska, you would not have a Professional position at all. But you would be rather busy in Miami! Fungal infections are a matter of geography, metereology, culture, personal habit and particularly, age. I regard the neglect of the elderly foot as a scandal in medicine. For most dermatologists, the foot stops at the ankle.

What are the socio - economic implications of the disease ?

Let me give you a stricking exampio of the possible consequence of fungal foot infections. In Vietnam, the major cause of ineffectiveness in the US Army were people on patrol out in the rice fields who were unwilling to take off their shoes because it was extremely difficult to move without them.

Eighty percent of the soldiers would come back to base on their hands and knees after three or four days in the field because of violent, inflammatory ring worm infections.

How effective is ciclopirox against fungal infections?

I think it is the most effective of all the available anti-fungal agents. Every exhaustive survey has shown that the specific properties of ciclopirox are superior to those of any other agent in this field. The reason, in my view, is probably the rapid and high penetration into the horny layer where the fungi reside, as well as the broad antibacterial spectrum of the substance which is again superior to that of any other preparation.

An Appreciation

Prof. N. Saravanapavananthan

01-04-1935 — 24-06-1992

The sudden demise of Professor Navaratnam Saravanapavananthan has left a vaccum in the field of Forensic Medicine. His stature, physically and intellectually has left an indelible imprint on students and colleagues alike.

He had his early education at Manipay Hindu College and later at Ananda College, Colombo.

He graduated from the University of Colombo in 1961 and subsequently obtained his DMJ (London) in 1969 from the University of Edinburgh. He was conferred the MRCP (UK) in 1970.

He was elected a Fellow of the Royal College of Physicians (Edinburgh) in recognition of his contribution to Forensic Medicine.

He had served as the Judicial Medical Officer in Galle, Batticaloa and Colombo during the period 1970 -78. He joined the University of Jaffna in 1978 and continued his judicial work in addition to teaching. He gained the reputation of being an honest, fearless and sincere worker with a very high level of integrity.

Following the "Kumudini" boat killings he with the assisstance of two others performed postmortem examination on 32 bodies during a single night.

His fearless evidence in a case of shooting made the state make an order that postmortems need not be done in cases of shooting by the army.

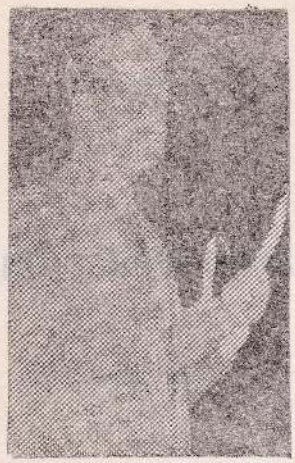
He was the president of the Jaffna Medical Association in

His publication "Medico - Legal aspects of Injuries" is used as a text in undergraduate teaching.

In recognition of his contribution to Forensic Medicine he was given the Award of Merit at the first world meeting of Police Surgeons and Medical Officers held in Kansas, USA in August 1987.

He leaves behind his wife and two daughters.

N. S.



An Appreciation

Dr. Velupillai Krishnarajah

09-09-1934 — 28-01-1994

The passing away of Krishna has removed from us not only a devoted surgeon and an excellent teacher, but one who dedicated his life to the upliftment of the suffering fellow beings in the community.

Velupillai Krishnarajah graduated from the Colombo Medical College at the age of 24 and was elected a Fellow of the Royal College of Surgeons of England 11 years later. Since then he served as a Consultant Surgeon in several parts of Sri Lanka and came to Jaffna in 1979 where he served until his premature retirement due to his illness in 1989.

When he assumed duties in Jaffna, the Medical Faculty was one year old and the Jaffna General Hospital was being elevated to the status of a Teaching Hospital. His contribution towards the development of the hospital and the Medical Faculty was immense.

He had a vision of a modern Teaching Hospital for Jaffna and relentlessly applied himself in drawing up detail plans for a new hospital for Jaffna.

He was very simple in his personel life. His research included simple but, basic and practical topics such as management of wounds, burns, fall from trees, the diabetic foot and wound infections in surgical wards.

His publications also include books in Tamil to educate health workers and the general public. He was instrumental in organising recorded daily health education talks to visitors to the General Hospital Jaffna.

Krishna was a pillar of strength of the Jaffna Medical Association. He was president in 1983/84 and Editor of the Jaffna Medical Journal from 1981 – 1983. He was an active participant in every academic session of the Jaffna Medical Association.

He was one of those who organized the Cancer Society in Jaffna and established the Home for terminally ill cancer patients at Tellippalai.

It is unfortunate that he had to succumb to the same illness for which he strived to provide Primary' Secondary & Tertiary care.

He leaves behind his wife Rathivathani and daughter Kumudini and son Nirantharakumar who is a medical student.

N. Sivarajah

Ringworm of the foot arises from collaboration between the fungus – which is the first invader and alters the horny layer making it wet, sticky and macerated – and the resistant which love this kind of milieu bacteria and proliferate in it.

Any agent that can enter this 'swamp' fast, and that has both a wide anti-bacterial and antifungal spectrum, will result in earlier clinical responses, even if a mycological cure cannot be demonstrated. what patients need is an agent that will stop the itching and the maceration as well as the bad odour within a few days. I don't think that there is anything on the market that compares ciclopirox in that respect. If you track the rate at which ciclo-pirox penetrates the horny layer, you find that a fungistatic concentration builds up within an hour. Other agents may take anything up to 24 hours.

How does ciclopirox achieve this faster penetration?

This is only speculation but I suspect that ciclopirox is more lipophilic and since the horny layer lipids determine penetration, the agent can pass through more quickly than other substances they do not share these lipophilic properties to the same degree. Also, it is a stable material which is not altered as it penetrates the skin.

What are the recent insights into agieng of the skin?

We have now established beyond all doubt that the cause of premature aging are external insults, mainly sunlight, though other agencies such as wind, soap and excessive use of cosmetics also play a role.

What we used to think of as the manifestations of normal ageing is almost invariably the result of the cumulative effect of sunlight. This may not be a world-shattering discovery but universal recognition of this fact will at last enable us to develop methods to prevent these skin changes. We have followed up over a period of thirty yearsa group of Buddhist priests in Japan who had never been out in the sun. Our findings were that the 80-year-old looked as though they were only 50 and that the younger ones looked younger still. When we compared these priests with the sun-loving but sun-sensitive Irish who settled in Australia, we found that the 40-year-old out there looked more like 80-year-olds.

I believe that in the long run, if people can be made to understand the problem and are shown practical ways to prevent it, they will adopt those ways. This is not, let me emphasize, simply a a matter of preventing sun-burn but of protecting ourselves against the long-term effects of sunlight, for 20 or 30 years hsnce, which can greatly compromise the mental outlook of older people.

If a patient with a fungal infection is at the same time undergoing cortscosteroid treatment for another condition, will this cause problems?

The pharmacological feature which makes sterolds so interesting is that they suppress inflammation. But if the host doesn't know that the fungus is there because the fungus can no longer express inflammation it will grow as exuberantly as in a botanical garden. The infection then takes on appearances

which are no longer recognizable There is certainly an antagonism between steroids and fungal infections Steroids will suppress inflammation so that the fungus can get a foothold, goes unrecognised and grows unchecked. When I see somebody with an apparently unrecognizable skin disease! my first action is to esablish what drugs the patient is taking and whether he is using topical steroids. It is amazing to find how often this historical questioning allows you to identify the condition that you are dealing with. Dermatologists know how and when to stop steroids but this expertise is not always shared by medical practitioners without dermatological training.

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