Journal of Bangladesh College of Physicians and Surgeons

VOL. 5 : NO. 1 : PAGES 1—47 AUGUST, 1987

CONTENTS

JOURNAL OF
BANGLADESH COLLEGE OF
PHYSICIANS AND SURGEONS

VOL. 5 : NO. 1
AUGUST, 1987.

Published by :
Dr. Shafiqul Hoque on behalf of the
BANGLADESH COLLEGE OF
PHYSICIANS AND SURGEONS.
Mohakhali, Dhaka-1212. Phone: 600454.

Printed at :
ASIAN COLOUR PRINTING
130, D.I.T. Extention Road (Fakirerpool)
Dhaka-1000.
Phone : 40 76 56

Price :
Taka 30.00 (Inland)
US $ 7 (Overseas)

CONTENTS

INFORMATION FOR CONTRIBUTORS

The Journal of Bangladesh College of Physicians and Surgeons is published twice a year in the months of February and August. Articles are received throughout the year.

Submiting the Manuscript :

Manuscripts for original communication should be submitted in triplicate to the editor.

Articles are accepted for publication on the condition that they are contributed solely to this journal. Paper should be as brief as possible consistent with the subject. Short case reports are accepted provided this do not exceed two full pages in the journal (usually around five typewritten pages). Authors should estimate space occupied by title, authors illustrations and refere nces so as to keep within the two-page limit.

Preparing the Manuscript :

Manuscript should be neatly typewritten on one side of the page only with double or triple spacing and liberal margins. Please do not use erasable bond.

Please be sure to include an accurate address for editorial communications and for reprint requests.

A brief abstract of the material of the paper should precede the body of the paper, to run not more than 500 words and to replace any summary section at article's end. A short running title and several words for the purpose of indexing and computer programming titled INDEX WORDS should be added at the bottom of the title page.

Measurements should be in S, I. Units.

Illustrations and Tables :

Position of figures and tables in the text should be marked on the manuscript and cited in order in the text. Arabic numbering should be used for figures and Roman numbering for tables. All line drawings should be submitted in triplicate as clear, glossy, black and white, 5"X7" photographs. Photomicrographs should also be submitted in triplicate, with allowance made for the effects of reduction, if necessary. Legends for illustrations should be typewritten, double-spaced on a separate sheet and included at the end of the manuscript. A legend must accompany each illustration.

Each table should be typed on a separate sheet and appropriately numbered legends should be typed on the same sheets as the tables. The contributor must bear all costs connected with printing colour illustration.

References :

References should be compiled at the end of the article alphabetically. Only those references should be listed which have been quoted in the text in the form of Authors name and year of publication. They should be typewritten, double-spaced under the heading REFERENCES. Abbreviation for titles of medical periodicals should conform to those used in the latest edition of Index Medicus. Give inclusive page number.

Examples of References :

Journal article, one author:

1. Lloyd JR: The etiology of gastrointestinal perforations. J Pediatr Surg 4:77 85, 1983.

Journal article, two or three authors:

2. Kilpatrick R M, Aseron CA: Radioisotope detection of Meckle's diverticulum causing intestinal bleeding, Z. Kinderchis 13, 310-217, 1973.

(See page 26)

CANCER INCIDENCE IN BANGLADESH

Dr. Sayyid Fazlul Huq

Key Words :
Cancer, Incidence.

Summary :

23,820 Cancer treated at radiotherapy departments of Dhaka Medical College Hospital (DMCH), Chittagong Medical College Hospital (CMCH) and Kumudini Hospital, Mirzapur (KHM) during the period of 1964 to 1977 are studied. Site distribution of cancers in male and female has been studied separately. Cancers of hypopharynx-cum-larynx (21.07%), oral cavity (16.68%), lung (13.03%), oesophagus (5.23%) and malignant lymphoma (5.13%) in male and caners of cervix (26.85%), oral cavity (20.44%), breast (14.49%), hypopharynx-cum-larynx (4.88%), oesophagus (3.97%) and malignant lymphoma (3.27%) in female have been found to be more frequently occuring malignancies seeking treatment in those centres. Ratio of male and female cases has been shown to be 3.5: 1 (18565:5257). Possible reasons for their causation are described. Probable influence of excessive intake of red chilli has been suggested for causation of oesophageal cancer.

Dr. Sayyid Fazlul Huq, Professor of Radiotherapy (Retired) and President, Bangladesh Cancer Society. 86, Laboratory Road, Dhaka-5, Bangladesh.

* This article was presented at the Workshop on Cancer Control organised by WHO in Dhaka in December 1977.

Introduction :

Epidemiological studies of cancer are the forerunners of any programme to be initiated on cancer, without which no plan can be formulated. Epidemiological studies are also vitally essential to judge the effect of any project during its on-going period and also at its completion. Epidemiological studies are similarly important for maintenance of any achievement made so far.

The first step to control cancer is to gather complete and accurate information on its occurance, the most common types and the various causative factors to their formation, for which national or regional population based cancer registry or systematic and proper hospital based cancer registry is essential. These are almost non-existent in Bangladesh. But it is not very difficult to organise at least the hospital based cancer registry because what it needs is the standardization of the existing system of recording and co-operation amongst the different departments of the same hospital and different hospitals of the country.

International surveys proved beyond doubt that age specific incidence of cancer of all sites is almost equal every where in

the world[1]. On the basis of this internationally accepted fact the cancer incidence of any country can be estimated and it has been estimated that 60,000 persons* die of cancer annually in Bangladesh, the country of 75 million people[2].

Although the age specific incidence of cancer of all sites taken together is almost the same in all regions of the world, there are some significant differences in prevalence of cancer that develops in specific organs due to some racial characteristics, religious customs, peculiar habits, dietary deficiencies, hazardous occupations and environmental influences.

Source :

For the study of the distribution of sites of cancer in Bangladesh the only source could be made available is the hospital records of cancer cases treated at the three major radiotherapy departments of the country namely that of Dhaka Medical College Hospital (DMCH), Chittagong Medical College Hospital (CMCH), and Kumudini Hospital, Mirzapur (KHM). Informations given in this paper are not free from bias because the cases studied in this series represent only radiosensitive tumours while a great bulk which are not radiosensitive and which are treated elsewhere by only surgery or by only chemotherapy are not included.

Material :

In this series 23,820 cancer cases treated at DMCH, CMCH and KHM have been studied. Out of these 17,586 cases are of DMCH for the peiod 1968-77 (upto November), 1,793 cases of CMCH for the period 1968-72 and 4,441 cases of KHM for the period 1964-73 (upto February). As this series does not include any case treated by only surgery or by only chemotherapy, the number of case of cancer stomach, colon, rectum, liver, gallbladder pancreas etc. are negligible. In fact prevalence of cancer of stomach, colon, rectum and liver are quite high. As this series is composed of 23,820 cancer cases belonging to all the three major radiotherapy centres of Bangladesh, which cater to cancer patients of almost entire population of the country and covering a period of about 14 years, it may reveal some important facts in relation to cancer incidence of Bangladesh.

Results :

In table I site distributions of the male cancer cases with percentage have been tabulated in separate columns for individual centres before being added together and calculated for percentages of the total. The percentages of the sites lip, mouth, anterior 2/3rd tongue, base tongue, oropharynx, nasopharynx, lung, bone, soft tissues, skin, kidney, urinary bladder etc. of different centres are observed to be almost equal. This indicates that the frequency of cancer of these sites are uniform all over the country. A few words are necessary for the sites hypoharynx and larynx. Some gross differences are found in incidence of hypophaynx and larynx if they are considered separately e. g. 4.76% at DMCH, 19.65% at CMCH and 0.87% at KHM for hypopharynx and 15.45%, 9.25% and 20.13% respectively for larynx but these differences disappear almost completely if both of them are considered together i. e. 20.23% at DMCH, 28.90% at CMCH and 21.00% at KHM.

* Anuual Cancer death would be 1 00,000 in Bangladesh of today having 100 million people.

the reason being that the late cases of hypopharynx may have been misdiagnosed as cancer of larynx and vice-versa. Hence, it can be assumed that the frequency of cancer of hypopharynx-cum-larynx is uniform all over the country.

In table II site distributions of cancer in females have been shown in similar manner as those of males.

In Table III & IV neoplasms of leading sites in male and female have been tabulated in the same way as they have been done in tables I & II. Here the sites lip, mouth, anterior 2/3rd tongue, base tongue and oropharynx are considered together as cancer of oral cavity and sites hypopharynx and larynx as one entity.

Table—I : *Incidence of cancer in male*

Sites	Dhaka 1968-77	Chittagong 1968-72	Mirzapur 1964-73	Total
Lip	97 (0.69)	9 (0.65)	27 (0.82)	133 (0.71)
Mouth	661 (4.75)	65 (4.73)	224 (6.82)	950 (5.11)
Tongue (Ant.2/3)	261 (1.87)	29 (2.11)	99 (3.01)	389 (2.09)
Tongue (Base)	385 (2.76)	63 (4.58)	72 (2.16)	520 (2.80)
Nasopharynx	168 (1.20)	21 (1.53)	43 (1.29)	232 (1.24)
Oropharynx	828 (5.95)	85 (6.18)	196 (5.88)	1109 (5.97)
Hypopharynx	663 (4.76)	270 (19.65)	29 (0.87)	962 (5.18)
Oesophagus	678 (4.87)	219 (15.93)	75 (2.25)	972 (5.23)
Larynx	2150 (15.45)	127 (9.25)	671 (20.13)	2948 (15.88)
Lung	1845 (13.26)	149 (10.84)	426 (12.78)	2420 (13.03)
Bone	278 (1.99)	31 (2.26)	115 (3.45)	424 (2.28)
Soft Tissue	178 (1.27)	22 (1.60)	64 (1.92)	264 (1.42)
Skin	392 (2.81)	54 (3.93)	108 (3.24)	554 (2.98)
Kidney	65 (0.46)	5 (0.36)	1 (0.03)	71 (0.38)
Urinary Bladder	120 (0.86)	14 (1.02)	5 (0.15)	139 (0.74)
Malignant Lymphoma	591 (4.24)	53 (3.86)	309 (9.27)	953 (5.13)
Leukaemia	100 (0.71)	10 (0.73)	57 (1.71)	167 (0.89)
Others	1639 (11.77)	139 (10.14)	763 (22.89)	2541 (13.68)
All	13914 (100)	1365 (100)	3284 (100)	18563 (100)
Hypopharynx-cum-Larynx	2815 (20.23)	397 (28.90)	700 (21.00)	3912 (21.07)

Figures in parenthesis indicate percentage

Table—II : *Incidence of cancer in female*

Sites	Dhaka 1968—77	Chittagong 1968—72	Mirzapur 1964—73	Total
Lip	49 (1.33)	5 (1.16)	19 (1.63)	72 (1.36)
Mouth	370 (10.13)	40 (9.35)	42 (12.21)	552 (10,50)
Tongue (ANT 2/3)	89 (2.42)	11 (2.56)	17 (1.46)	117 (2.22)
Tongue (BASE)	84 (2.28)	15 (3.50)	17 (1.46)	116 (2.20)
Nasopharynx	19 (0.51)	2 (0.46)	3 (0.26)	24 (6.45)
Oropharynx	184 (5.01)	13 (3.03)	22 (1.89)	219 (4.16)
Hypopharynx	51 (1.38)	15 (3.50)	3 (0.26)	69 (1.31)
Oesophagus	160 (4.35)	41 (9.55)	8 (0.69)	209 (3.97)
Larynx	141 (3.83)	10 (2.33)	37 (3.18)	188 (3.57)
Lung	96 (2.61)	16 (3.72)	13 (1.12)	125 (2.37)
Bone	92 (2.50)	9 (2.10)	37 (3.18)	138 (2.62)
Soft Tissue	42 (1.14)	9 (2.10)	12 (1.03)	63 (1.19)
Skin	93 (2.53)	6 (1.39)	62 (5.33)	161 (3.o6)
Breast	536 (14.59)	53 (12.35)	173 (14.88)	762 (14.49)
Cervix	993 (27.01)	96 (22.40)	323 (26.78)	1412 (26.85)
Kidney	20 (0.54)	4 (0.93)	1 (0.09)	25 (0.47)
Urinary Bladder	9 (0.24)	0 (0.00)	2 (0.18)	11 (0.20)
Malignant Lymphoma	89 (2.42)	12 (2.80)	71 (6.11)	172 (3.27)
Leukaemia	32 (0.87)	3 (0.70)	I9 (1.63)	54 (1.02)
Others	523 (14.24)	68 (15.65)	176 (15.14)	767 (14.59)
All	3672 (100)	428 (100)	1157 (100)	5257 (100)
Hypopharynx-cum-Larynx	192 (5.4)	25 (5.83)	40 (3.44)	257 (4.88)

Figures in parenthesis indicate percentage

Table—III : *Incidence of cancer of leading sites in male*

Rank	Sites	Dhaka 1968-77	Chittagong 1968-72	Mirzapur 1064-73	Total
1.	Hypopharynx-cum-Larynx	2815 (20.23)	397 (28.90)	700 (21.00)	3912 (21 07)
2.	Oral Cavity	2232 (15.53)	251 (18.25)	618 (18.69)	3101 (16.68)
3.	Lung	1845 (13.26)	149 (10.48)	426 (12.78)	2420 (13.03)
4.	Oesophagus	678 (4.87)	219 (15.93)	75 (2.25)	972 (5.23)
5.	Malignant Lymphoma	591 (4.24)	53 (3.86)	309 (9.27)	953 (5.13)
	All	13914 (100)	1365 (100)	3284 (100)	18503 (100)

Figures in parenthesis indicate percentage

Table—IV : *Incidence of cancer of leading sites in female*

Rank	Sites	Dhaka 1968-77	Chittagong 1968-72	Mirzapur 1964-73	Total
1.	Cervix	993 (27.04)	96 (22.40)	323 (26.78)	1412 (26.85)
2.	Oral Cavity	776 (21.17)	84 (19.60)	217 (18.65)	1076 (20.44)
3.	Breast	536 (14.59)	53 (12.35)	173 (14.88)	762 (14.49)
4.	Hypopharynx-cum-Larynx	192 (5.4)	25 (5.83)	40 (3.44)	257 (4.88)
5.	Oesophagus	160 (4.35)	41 (9.55)	8 (0.69)	209 (3.97)
6.	Malignant Lymphoma	89 (2.42)	12 (2.80)	71 (6.11)	172 (3 27)
	All	3672 (100)	428 (100)	1157 (100)	5257 (100)

Figures in parenthesis indicate percentage

Discussion :

Cancers of hypopharynx-cum-larynx, oral cavity, lung, oesophagus and malignant lymphoma in male and cancers of cervix, oral cavity, breast, hypopharynx-cum-larynx, oesophagus and mlignant lymphoma in female are found to be most frequently occuring neoplasms. Incidence of hypopharynx - cum - laryngeal cancer (in male 21.07% and in female 4.88%) oral cancer (in male 16.68% and in female 20.44%) and cervical cancer (26.85%) are found much higher in Bangladesh than elsewhere while incidence of lung cancer (in male 13.03% and in female 2.37%) and breast cancer (14.49%) are found relatively lower and prevalence of malignant lymphoma (in male 5.13% and in female 3.27%) are slightly higher[3].

Ratio of total male and female cases is 3.5: 1 (18563:5257).

An interesting finding has been observed in the incidence of oesophageal cancer in male at different centres highest being at CMCH (15.93%) whereas it is 4.87% at DMCH and 2.25% at KHM. That the people in and around Chittagong are in the habit of taking red chilli in great excess may have some influence on the increased rate of oesophageal cancer[4].

The percentage of lung cancer at DMCH is 13.26% and that of total is 13.03% in male in this series of recent years while in my earlier study of 3,650 cases of DMCH for the period 1960-64 incidence of lung cancer had been found to be 11% in male[5].

Through personal communication recent position of lung cancer in DMCH has been found still higher than shown in this series. The probable reasons for the present increase in incidence of lung cancer may be more smoking habit in our people and the swing towards the habit of smoking "Bidi" and cigarettes from "Hukka" in which smoke passes through water before being inhaled.

The higher incidence of cancer of oral cavity and hypopharynx may be attributed to the habit of chewing tobacco with or without betel leaf, betel nut and slaked lime (6,7) and deficiency of nourishing diet and vitamin B-Complex in our people[2]. This is also true in most of the countries of eastern region[8].

The relatively lower incidence of lung cancer may be due to the peculiar local smoking habit of "Hukka". Probable reasons for relatively lower incidence of breast cancer in women of this country may be due to the practice of early marriage and breast feeding. Higher rate of cancer cervix in our female population may be due to greater incidence of child birth injuries and cervicitis[7]. The probable reason for higher incidence of oesophageal cancer in some parts of the country (15.93% at CMCH) may be the infiluence of high intake of red chilli as spices[4].

Conclusion :

Hypopharynx-cum-larynx, oral cavity, lung, oesophagus and malignant lymphoma in male and cervix, oral cavity, breast, hypopharynx-cum-larynx, oesophagus and malignant lymphoma in female have been found to occupy the top places in the list of cancers. Frequency of oesophageal cancer in male is found higher in some parts of the country probably due to high intake of red chilli. The incidence of lung cancer has been found to follow the rising curve

with progress of time probably due to increased smoking habits in the people and also due to the swing towards the habit of smoking "Bidi" and cigarettes from "Hukka".

Diagnosis of the cases presented here was mostly done only on clinical judgement. Error was less likely as the cases were very advanced. Histological confirmations were not possible in majority of cases but with the progress of time the percentage of histopathologically confirmed cases has been increasing due to more interest taken by the clinicians and greater co-operation given by the pathologists now a days.

Acknowledgement :

I acknowledge with profound gratitude the most valuable contribution and help of Dr. M. A. Khair, Professor of Radiotherapy of Chittagong Medical College for furnishing the data of CMCH, Dr. A Halim Choudhury, Radiotherapist of Kumudini hospital, Mirzapur for allowing us to collect the data of KHM, Dr. M. A. Hai, Director of Cancer Institute & Research Hospital, Mahakhali and Dr. Amir Hussain Associate Professor of Mymensingh Medical College for collecting the data of KHM by going personally with me to Mirzapur and Dr. Nazrul Islam Miah, Associate Professor of Radiotherapy of Dhaka Medical College for compiling the data of DMCH.

References:

1. Hirayama, T.: *Strategy for Cancer control in Asia, Cancer in Asia*, GANN Monograph on Cancer Research No. 18, 1976.
2. Huq, S. F. : *Cancer Problem in Bangladesh, Cancer in Asia*, GANN Monograph on Cancer Research No. 18, 1976.
3. 1975 Cancer Facts & Figures. *American Cancer Society*.
4. Huq, S. F.: *Chilli and Carcinoma of oesophagus*, East Pakistan Medical Journal, Vol. X. No. 1. January, 1966.
5. Huq, S. F. : *Some Aspects of Site Distribution of Cancer in East Pakistan.* Journal of the Pakistan Medical Association, Vol. XV, No. 4, April 1965.
6. Jussawalla, D. J. : *The Problem of Cancer in India, cancer in Asia*, GANN Monograph No. 18, 1976.
7. Luthra, U. K. : *Epidemiology of Cervical Cancer, Cancer in Asia*, GANN Monograph No. 18, 1976.
8. Nissanga, S. : *Incidence and Pattern of Cancer in Srilanka, Cancer in Asia.* GANN Monograph No. 18, 1976.
9. Wahi, P. N. : *Oral and Oesophageal Tumours, Cancer in Asia*, GANN Monograph No. 18, 1976.

SOME OBSERVATIONS ON IODINE DEFICIENCY GOITRE AT NMC DINAJPUR

S Khalilullah[1], Farid Uddin Ahmed[2]

Key Words :

Goitre, iodine deficiency

Summary :

According to the Institute of Public Health Nutrition survey from July 1981 to December 1982, 17.69%[8] of population of Dinajpur district are suffering from Iodine Deficeincy Goitre, whereas, our survey of 10,000 School children of Dinajpur Municipal Area by using Radioiodine Uptake method shows that 7.41%[5] of them are suffering from iodine Deficiency Goitre, which is much less than the District average. This is probably due to existence of certain pockets where iodine deficiency goitre is much higher than other parts of the District. Another sample of symptom free children show that 78.10%[6] are suffering from iodine deficiency and some of them are likely to develop goitre.

Analysis (Frequency distribution as per age, sex, race, religion, food habit, etc.) of 532 cases of iodine deficiency goitre[7], who attended this centre may lead us to aetiological factors which need further investigations and might be helpful in the prevention of iodine deficiency disorders in this zone.

Introduction :

In the recent years, priority has been given to the eradication/control of endemic goitre in particular and iodine deficiency disorders (IDD) in general by the national and international authorities in Bangladesh. For the control of the disease it is necessary that all aetiological and epidemiological factors should be understood in their proper perspective. This paper aims at pinpointing some factors which has drawn our attention at the Nuclear Medicine Centre, Dinajpur (NMC,D). It must be admitted that our experience is partial and limited, and a much bigger effort should be undertaken to explore all the factors responsible for the causation of goitre. Dinajpur, Rangpur and Jamalpur districts, being almost continuous and situated in the Tista-Brahmaputra basin might have similiar factors responsible for endemicity of goitre in this region, With this end view this paper has been prepared.

Materials and Method :

Two surveys, so far, has been conducted by NMC,D. The first was to

1. Dr. S Khalilullah, Principal Medical Officer, Bangladesh Atomic Energy Commission
2. Dr. Farid Uddin Ahmed, Senior Medical Officer, Bangladesh Atomic Energy Commission.

assess the extent and degree of iodine deficiency among symptom free persons in Dinajpur Municipal area. In that survey 274 symptom free volunteers were taken from educational institutions of Dinajpur Municipal area and new recruits of BDR and only Radioactive Iodine Uptake (RAIU) was done[5].

In another survey 10,000 school children from the same area were screened for suspected thyroid enlargement, and from them 822 were brought to the centre for RAIU and thyroid scanning[6].

During the year 1984 detail data in the form of a questionaire was routinely collected from 532 persons who attended NMC,D with complaints of thyroid enlargement and were found to be suffering from iodine deficiency goitre. Analysis of this data has been incorporated in this paper.

Lastly some findings of the Soil Research Development Institute at Dinajpur has been considered.

RAIU is a measure of the accumulation of iodine in the thyroid gland and it indicates the iodine status of the body as well as functional condition of thyroid cells. At NMC, D 2hr, 24hr and 48hr uptake rates are routinely measured. While 2hr and 24hr uptake indicates how much and how soon the radioiodine is accumulated in the gland, 48hr uptake gives a measure of the organification and discharge of the thyroid hormone into the circulation, thereby preliminary exclusion of cases of thyrotoxicosis are made. By thyroid scanning size of the thyroid gland is assessed. This method is also useful for localisation of aberrant thyroid tissue, determination of the extent and nature of thyroid enlargement and presence of thyroid adenoma or metastasis[1].

Results :

Although national prevalence rate of goitre is 10.5% and that of Dinajpur district is 17.69%[8] survey of NMC,D showed that 7.41% of the students of educational institutions in Dinajpur Municipal area are suffering from iodine deficiency goitre[6]. But the extent of iodine deficiency (without goitre) is 78.10% in a sample from the same population[5].

Discussion :

Conspicuous difference in the endemicity of goitre in the district and in Dinajpur Municipal area indicates that endemicity is not homogenous throughout the district and there are likely to be some pockets where prevalence is more than that of elsewhere. Our field trips reveal that such a pocket may exist from the west of Thakurgaon town and extend on the north towards Ruohea. It has been reported that there are certain soil associates in the district which is sandy in nature, as such the percolation rate is higher in those places causing leeching of nutrients from the soil. It should be observed whether higher prevalence of goitre corresponds with those soil associates and its iodine content should also be estimated.

Among the patients who attended NMC, D 16.54% were male and 83.46% were female (Table-1)[7]. This could be due to more consciousness among the females about goitre. The national sex wise distribution of goitre being 12.37% in females and 10.51% in males[8], another survey should be conducted in a community to see whether the sex wise distribution of goitre is same in Dinajpur district as has been reported in the national goitre survey.

Data Analysis of 532 patients[7].

Table—I : *Sex wise distribution*

Male	—	16.54%
Female	—	8 .46%

Table—II : *Age wise distrsbution*

Age : 5-10 Yrs.	—	18.80%
10-15 „	—	47.74%
15-20 „	—	28.95%
20-25 „	—	03.01%
25 and above	—	1.50%

Highest prevalence rate in our series was (47.74%) (Table-III) in the 10-15 years age group[7] which may differ slightly from the age wise national prevalence rate (13-18 years)[8].

In our sample, 89.47% (Table—III) were born in Dinajpur, this is due to location of the centre[7].

Table—III : *Place of birth*

Dinajpur	89.47%
Rangpur	03 57%
Others	06.96%

In NMC, Dinajpur survey 81.02% were Muslims, 14.66% were Christians and 4.32% were Hindus (Table-1V). Whereas as per 1981 population survey 75.9% population of the district are Muslim, 21.9% population are Hindu and 0.6% Christian[2]. The difference between population of Hindus in the district and incidence of goitre among them seem to be signifiacnt. This should be reaffirmed in a community. In our series 12.97% were from the tribal population and 87.03% nontribal (Table-V)[7], This should also be checked in a community to see whether some tribes are more prone to develop goitre.

Table—IV

Religion wise distribution			Population survey of 1981 (8)
Muslim	81.02%	—	75.9%
Hindu	4.32%	—	21.9%
Christian	14.66%	—	0.6%
Others		—	1.6%

Table—V : *Racial distribution*

Tribal	12.97%
Nontribal	87.03%

85.15% (Table-VI) in our series are staying in Dinajpur for more than 5 years[7], logically iodine deficiency is expected to increase with duration of stay in an iodine deficient area.

85.72% were taking water from tubewells & 4.32% (Table-VII) from Municipal

Table—VI : *Duration of stay in dinajpur*

Less than	2 Yrs.	2.63%
	2 5 „	12.22%
more than	5 „	85.15%

Table—VII : *Source of drinking water*

Municipal supply (deep tubewell)	4.32%
Tube well	85.72%
Well	9.96%

water suppyl (deep tube well)[7]. This should be seen whether iodine content in different water levels vary.

Economic condition (Table-VIII) does not seem to have any relation with incidence of goitre as evident in table VIII[7].

Table—VIII : *Percapita yearly income (in Taka)*

Less than	1000	17.11%
	1000-2000	35.90%
more than	2000	28.00%
	Not reported	18.99%

Food habit in the sample could not be usefully ascertained and analysed. This could be due to faulty questionaire or improper filling of questionaire. 40.22% of siblings and 10.53% of maternal ancestors in our sample had goitre (Table-IX).

Table—IX : *Goitre among other members of the family*

Sibling	40.22%
Maternal cousins	1.32%
Paternal cousins	4.14%
Maternal ancestors	10.53%
Paternal ancestors	5.26%
None	38.53%

Table—X : *General health condition*

Bad	7.71%
Average	46.99%
Good	27.26%
Not reported	18.04%

Table—XI : *Food habit (Average intake)*

Animal protein	4.59 Times/Week
Tubers	5.57 Times/Week
Green vegetables	6.02 Times/Week

Conclusion :

In view of the above findings efforts should be made to ascertain the following points :

1. Pockets of high endemicity should be identified and its relation, if any, with the soil associates should be established.

2. Presence of goitrogens[3,4] such as high calcium content of soil and water, presence to monovalent anions, which might be responsible for the causation of goitre should be explored, especially in relevent soil associates.

3. Survey in a community should be conducted to see whether incidence of goitre is more prevalent in a particular race or religion group, as food habit, life style etc. differ in different racial and religious groups.

4. Efforts should be made to see if genetic factors are responsible for the causation of goitre.

Acknowledgement :

The authors would like to acknowledge their gratitude to Mr. Anisur Rahman, Executive Engineer, Water Development Board for pointing out different soil conditions in the district and Mr. Giasuddin Ahmed, Senior Scientific Officer, SRDI, Dinajpur for kindly supplying maps and data about soil condition. We would fail in our duty if we do not acknowledge the efforts of the Scientific Staff of NMC, Dinajpur in conducting the surveys and compilation of data.

References :

1. Ahmed, K., *Radioisotope Methods in investigation of goitre experience of the Institute of Nuclear Medicine, Dhaka, Proceeding of First National Workshop of Iodine Deficiency Disorders in Bangladesh, April* 26, 1984.
2. Census Report, 1981, *Dinajpur district, Govt. of the Peoples Republic of Bangladesh Publication.*
3. D, Amour, F. E., *Basic Physiology*, 442.
4. Ganong, W. F., *Review of Medical Physiology*, 9th Edition, 254.
5. Khalilullah, S. Ahmed, F. *Study of Thyroid Status of Symptom free persons in Dinajpur Area bv Radiotodine uptake, NMC, Dinajpur*, August 1984.
6. Khalilullah, S. Ahmed, F. *Survey of Incidence of Goitre among the students of educational institutions of Dinajpur Municipal Area by using Radioiodine* NMC, Dinajpur, 1984.
7. NMC, Dinajpur *Data Analysis of 532 Cases of Iodine Deficiency Goitre*, 1984.
8. Rahman, M. H *Prevalence of Endemic Goitre in Bangladesh ; Proceedings of First Natioual Workshop on Iodine Deficiency Disorders in Bangladesh*, April. 26, 1984.

FROZEN SECTION DIAGNOSIS: AN ANALYSIS

Syed Azim Ihtesham Ally[1], Dharam P Alrenga[2]

Key Words :
Frozen section; Analysis.

Summary:
A consecutive series of 502 operative frozen section diagnoses was reviewed. Correct diagnosis was made at the time in 98.9 % of the cases. Clinically relevant errors were found in 1% of the cases. Diagnosis was deferred to await subsequent paraffin sections in 7.9 %. No false positive diagnosis of malignancy was made. The cases of incorrect or deferred diagnosis were analysed to ascertain the origin of the difficulties.

Introduction:

Frozen section diagnosis has proved of great value in helping the surgeon determine the proper course of action while the patient is still in the operating room. At about the beginning of the 20th century, pathologic study of tissues at the time of operation became recognized as essential in arriving at a correct and expeditious diagnosis so that the appropriate surgical procedure could be performed (Wilson, 1905).

There are two major indications for the performance of frozen sections: to make a therapeutic decision on the basis of diagnosis rendered ; and to be sure that diagnostic tissue has been obtained in cases where the purpose of surgery is to obtain a biopsy, such as in a laparotomy done to confirm a suspected diagnosis of lymphoma.

Accuracy of diagnosis by any rapid method is the subject of much discussion. Essential for the correct interpretation are a capable pathologist and sections of good quality. Bredahl and Simonsen (1970) stated that the error rate of interpretation should only be 1%. They pointed out that, for success, frozen sections must be prepared and interpreted daily. The interpretation should be made by at least two pathologists, especially in difficult cases. They stressed that close cooperation between the pathologist and the surgeon is essential and they emphasized the necessity of evaluation of the gross specimen before making sections. Careful microscopic study of the wrong part of the tissue is to no avail, but it is a common error. Others also indicate that an error rate of approximately 1% can be expected. Holaday and Assor (1970) pointed out that the errors tended to be in the interpretation of difficult problems such as lobular carcinoma in situ and comedo-carcinoma of the breast. Notoriously difficult to recognise

1. Dr. Syed Azim Ihtesham Ally, M. D.
2. Dr. Dharam P. Alrenga, M. D. Department of Pathology, Cook County Hospital, Chicago. U. S. A.

as malignant by any modality are low-grade carcinomas of the pancreas, breast and other organs.

Materials and Methods :

Cook County Hospital, with 1435 beds and 100 bassinets, is a large community hospital providing inpatient and outpatient care in all specialities in both adult and paediatric patients.

During the four months from March to June 1983, 502 frozen sections were received by this department. During this time 7341 surgical specimens were received. The frozen section material thus formed 6.83 % of the cases.

One of the authors (SAIA) was the resident pathologist assigned to frozen sections during this period. Frozen sections are usually cut, stained and the slides are prepared by the resident pathologist. The microscopic diagnosis is made by the resident pathologist always in conjunction with the attending (consultant) pathologist and reported immediately.

Once examination of the frozen sections had been completed and reported the tissue blocks selected were then fixed, processed for paraffin embedding, and sectioned. Relevant tissue remaining after the frozen section assessment was also blocked and processed in the same manner for routine histological examination. The initial frozen section diagnoses entered in the case book were all compared with the final diagnosis issued on the subsequent paraffin sections. Any discrepancies were noted and these formed the basis of this study. In addition, deferred diagnoses, awaiting later paraffin sections for definitive opinion, were also analysed.

Results :

The tissue specimens submitted for frozen section diagnosis were from patients aged between a few months to 76 years. Two hundred and eighteen patients were between the fourth and fifth decades. Malignant lesions increased with increasing age. Of the 239 patients aged 50 years or less, 58 (24%) had malignant lesions. 96 patients (45%) over 50 years of age had malignant lesions. Overall, the male: female ratio was 1:3, which was mainly a reflection of the organs examined (Table-I).

Table—I : *Organs submitted for frozen sections*

Organ examined	All cases number	Malignant cases number (%)
Breast	209	92 (44)
Lymph node	72	12 (17)
Parathyroid	40	0 (0)
Stomach	21	5 (24)
Thyroid	20	3 (15)
Genito-urinary tract	18	3 (17)
Liver	18	11 (61)
C. N. S. (Central Nervous System)	16	6 (37)
Peritoneum	15	12 (80)
Oesophagus	12	5 (42)
Pancreas	11	3 (27)
Lung	8	1 (12)
Others	42	15 (35)
Total	502	168 (33)

The female breast was the organ most often examined, accounting for 209 (41.6%) of the cases. Parathyroids and lymph nodes were the next most common examined organs (Table 1). The distribution of malignancies among these organs varied considerably. Liver and peritoneal biopsies most often showed malignant tumours, whereas none of the parathyroid biopsies showed malignancy (Table 1). Breast, oesophagus, and various other organs yielded intermediate rates of malignancy (44%, 42% and 35% respectively).

Diagnosis on the frozen sections and subsequent paraffin sections were essentially similar in the 457 cases for which a firm frozen section diagnosis was issued. Clinically important differences, i. e., differences between benign and malignant diagnosis in frozen and paraffin sections, were found in 5 cases (Table II). Diagnosis on the frozen sections were deferred for appraisal of subsequent paraffin sections in 40 cases.

The 40 deferred diagnoses concerned the female breast (10 cases), lymph nodes (7), E. N. T. (3), liver, C. N. S., thigh, pancreas (2 each), and neck, carotid, diaphragm, kidney, stomach, finger, parotid, tongue, ovary, eyebrow, parathyroid and abdominal wall (1 each).

Table—II : *Analysis of errors of frozen section diagnosis*

	Specimen	Frozen section diagnosis	Paraffin section diagnosis
1.	Lymph node	Negative for malignancy	Microscopic foci of metastatic adenocarcinoma
2.	Breast	Negative for malignancy	Small foci of infiltrating adenocarcinoma (at the margin)
3.	Duodenal wa l	Negative for malignancy	Focal infiltration by lymphoma
4.	Eyelid	Negative for malignancy	Basal cell carcinoma
5.	Maxillary gingiva	Negative for malignancy	Small focus of squamous cell carcinoma.

Discussion :

Excluding the 40 cases in which definitive diagnosis was deferred, the accuracy in this series of frozen sections was 98.9%. This performance is comparable with that noted in the larger series of 1269 reported by Ackerman et al and in the 3000 cases surveyed by Nakazawa et al in which the diagnostic accuracies were 98% and 98.6% respectively. Most malignancies were found in the fifth and sixth decades, as is general experience in clinical practice (Walter & Israel, 1979). The breast was the organ most often examined, which probably

reflects the prevalence of breast disease and surgical requirements for urgent operative diagnosis.

The assessment of factors leading to errors in the 5 cases showed the following: (a) focality of lesion in 4 cases and (b) morphological misinterpretation in 1 case.

The analysis of the deferred cases revealed the following factors: overcautious appraisal and failure to recognise well described histopathological patterns. Pitfalls in the differential diagnosis of biliary tract epithelial tumours, carcinoma and papillary tumours in the breast and thyroid are notorious (Holaday & Assor, 1974 ; Lessels & Simpson, 1976 ; Winship & Rosvoll, 1959). Deferral or a reserved benign diagnosis is preferable to an unjustifiably dogmatic diagnosis of malignancy.

Reference :

1. Ackerman LV, Ramirez GA: *The indications and limitations of frozen section diagnosis: a review of 1269 consecutive frozen section diagnosis.* Br. j. Surg., 1959 : 46:336-50.
2. Bredahl E, Simonsen J: *Routine performance of intra-operative frozen section microscopy, with particular reference to diagnostic accuracy.* Acta Pathol Microbiol Scand (Suppl) 1970 ; 212:104-111.
3. Holaday WJ, Assor D: *Ten thousand consecutive frozen sections: a retrospective study focusing on accuracy and quality control.* Am J Clin Pathol 1974 : 61:767-77
4. Lessells AM, Simpson JG: *A retrospetive analysis of the accuracy of immediate frozen section diagnosis in surgical pathology.* Br J Surg, 1976 ; 63:327-9.
5. Nakazawa J, Rosen P, Lowe N, Lattes R: *Frozen section diagnosis experience in 3000 cases.* Am J Clin Pathol 1968 : 49:41-51.
6. Walter JB, Israel M: *General Pathology.* 5th ed. London: Churchill Livingstone, 1979 ; 391-410.
7. Wilson LB: *A method for the rapid preparation of fresh tissues for the microscope.* JAMA 1905 ; 45:1737.
8. Winship T, Rosvoll RV: *Frozen sections: an evaluation of 1810 cases.* Surgery 1959 ; 45:462-6.

ANAEROBES FROM CLINICAL SPECIMENS IN RIYADH, SAUDI ARABIA

Muhammad Abdus Samad Talukder

Key words :

Anaerobes, Facultative anaerobes, Micro-aerophilic, Bacteroides fragilis, Anaerobic streptococci, Metronidazole, Saudi Arabia.

Summary :

This is a report on anaerobic organisms isolated from 44 patients' 46 clinical specimens from Riyadh Armed Forces Hospital, Saudi Arabia. Conventional anaerobic culture on blood agar plates were made, placed in anaerobic jars with catalyst and BBL gas-pack as source of hydrogen and indicators to ensure anaerobiosis. Incubation was done at 37°C. Vaginal swab, blood culture, abdominal wound and pus (50 %) were the commonest source of anaerobes. Commonest anaerobes isolated were Bacteroides fragilis (50%), followed by anaerobic streptococci (20%), and clostridium perfringens were present in 8% of specimens.

Dr. Muhammad Abdus Samad Talukder
Formerly Consultant Microbiologist, Head of Microdiology and Chairman, Control of Infection Committee, Riyadh Armed Forces Hospital, P.O. Box 7897 Riyadh 11159, Kingdom of Saudi Arabia. Present address and for correspondence : 50A, D.O.H.S., Banani, Dhaka Cantonment, Dhaka 1206, Bangladesh.

Introduction :

Anaerobic organisms can cause serious infections. In developed countries culture for anaerobic organisms is a routine procedure. But unfortunately this is not so in most of the developing countries.

Micro-organisms differ considerably in the way in which the carbon and energy source is broken down to provide energy.[1] This difference mainly concerns the involvement of oxygen as a terminal electron acceptor in the system. Bacteria are classified as obligate aerobes or obligate or strict anaerobes because they can only grow in one or the other way. There are other organisms which are facultative anaerobes because they are able to grow either aerobically i. e. in the presence of air and free oxygen or anaerobically in its absence. It has been suggested that in the presence of oxygen, a strict anaerobe is liable to produce toxic peroxides that it cannot destroy ; many strict anaerobes lack catalase, an enzyme present in most aerobes and facultative anaerobes. There is another group of organism that grow best in the presence of a trace of

free oxygen and often prefer an increased concentration of carbon dioxide ; these are called microaerophilic[2].

Infections due to nonsporing anaerobes are associated with the formation of copious, foul-smelling pus from which these organisms may be isolated in abundance in 24 to 48 hours[7]. Cerebral abscess particularly temporal lobe abscesses of otic origin are caused by mixed flora including *Bacteroides fragilis*[3,6]. Anaerobes may cause osteomyelitis in patients with peripheral vascular diseases especially diabetis.[11] Lack of published data on anaerobes from Saudi Arabia encouraged this study.

Materials and methods :

The specimens were submitted from various wards and clinics over a period of four months from May to August, 1982. Both aerobic and anaerobic cultures were made. Anaerobic culture of pus, wound or other swabs were made on blood agar plates and incubated with BBL gas pack, with 10 ml water as a source of hydrozen in anaerobic jars with catalyst and incubated at 37°C. Incubation was normally done for 24 hours but negative ones were further incubated for 48 hours and examined. Negative ones were incubated for 5 days. After incubation the colonies were examined for colonial morphology, Gram stained smear was made and sensitivity test performed and appropriate confirmatory tests were done. Indicators either chemical indicator strip supplied by BBL or biological indicator such as strict aerobe *pseudomonas aeruginosa* were used to ensure anaerobic culture. Absence of growth of *Pseudomonas aeruginosa* was taken as sure method of anaerobic atmosphere. Aerobic cultures were performed on blood agar and other appropriate media and incubated for 24 to 48 hours. Aerobic organisms were identified by appropriate technique. Sensitivity testing was performed by disc diffusion method on DST agar with lysed blood under anaerobic conditions using metronidazole, penicillin, erythromycin and clindamycin discs for anaerobes.

Results:

There were 20 males and 22 females and sex of two patients were not recorded. Age of 37 patients ranged from 2 days to 77 years and mean age is 30.3 years. Age of seven patients were not recorded. Forty-six specimens from 44 patients yielded 50 anaerobes. The commonest specimens were swabs from female genital tracts followed by the blood, pus and wound swabs as shown in table I. The commonest

Table—I: *Sources and Types of Specimens Examined For Anaerobic Organisms*

SPECIMEN	No.
Vaginal swab	10
Blood culture)	5
Wound swab	5
Pus swab	4
Skin swab	4
Cervical swab	3
Urethral swab	3
Ear swab	3
Abdominal swab	3
Perineal swab	1
Suture swab	1
Molar teeth swab	1
Sebacious cyst swab	1
Umbilical cord swab	1
Prostatic secretion swab	1
Total	64

anaerobes isolated were *Bacteroides fragilis* (50%) followed by anaerobic streptococci (20%) and *Clostridium perfringens* was present in 8%. The list of anaerobic organisms are shown in table II. One specimen of the dental abscess gave Veillonella species in addition to *Bacteroides fragilis* and *Bacteroides melaninogenicus*. Associated aerobic organisms are indicated in table II.

Table—II: *List of anaerobic bacteria isolated from clinical specimens*

Anaerobe	Number (%)
Bacteroides fragilis	15 (50)
Anaerobic streptococci	10 (20)
Clostridium perfringens	4 (8)
Bacteroides melaninogenicus	3 (6)
Bacteroides species	3 (6)
Peptostreptococcus	3 (6)
Peptococcus	1 (2)
Veillonella species	1 (2)
Total	50 (100)

Associated aerobic organisms

Klebsiella pneumoniae

Escherichia coli and enterococci

Corynebacterium species

Bacteroides fragilis and other Bacteroides species were isolated from vaginal swabs, blood cultures, appendicectomy wounds, pilonidal swab and one subdural abscess. Anaerobic streptococci were also isolated from genito-urinary tracts (urethral and paraurethral pus swab), blood cultures and one from appendicectomy wound. Correlation of commonly isolated anaerobic organisms with specimen sources and vice versa are shown in tables IIIA-C and IVA-C.

Table—III: *Correlation of commonly isolated anaerobic organisms with specimen sources.*

A. Bacteroides fragilis and other Bacteroides species were isolated from the following sources.	
Abdominal wound	9
High vaginal swab and female genital tracts	7
Blood culture	3
Ear swba	3
Pilonidal abscess	2
Male genital tract : Hypospadiasis correction and prostatic secretion	2
Dental abscess (subdural)	2
Beatal abscess (subdural)	1
Arthritis	1
Total	30
B. Anaerobic streptococci were isolated from the following specimens.	
Wound swab	3
Vaginal hysterectomy and swab	2
Blood culture	1
Urethral swab	1
Paraurethral pus	1
Sebacious cyst	1
Sacral swab	1
Total	10
C. Clostridium perfringens were isolated from the following specimens.	
Vaginal discharge and swab	1
Perineal leak	1
Umbilical swab	1
Total	3

Clostridium perfringens were isolated from high vaginal swabs and umbilical cord.

Five specimens of blood cultures from four patients yielded three *Bacteroides fragilis* and two anaerobic streptococci.

All 50 (100%) anaerobes were sensitive to metronidazole. Forty-five (90%) of 50 anaerobes were sensitive to clindamycin. Seventyeight percent of all anaerobes (39/50) and 90% *Bacteroides fragilis* and other Bacteroides species were sensitive to erythromycin. All anaerobes except *Bacteroides fragilis* were sensitive to penicillin.

Table—IV : *Correlation of specimen source with isolated anaerobic organisms*

A. Vaginal swab yielded the following anaerobic organisms	
Bacteroides fragilis	7
Clostridium perfringens	2
Anaerobic streptococci	2
Peptostreptococci	12
Total	22
B. Abdominal wound yielded the following organisms.	
Bacteroides fragilis	5
Bacteroides melaninogenicus	1
Bacteroides species	2
Anaerobic streptococci	2
Peptostreptococci	2
Total	12
C. Blood culture yielded the following anaerobic organisms.	
Bacteroides fragilis	3
Anaerobic streptococcus	1
Total	4

Discussion :

Anaerobes are important cause of clinical infection with foul smelling pus. It is surprising that anaerobes were not recognised as cause of nonspecific vaginal infection until 1978[10]. Commonest specimens were from female genital tracts. Female genital tract with symptoms showing anaerobes should be treated with appropriate antibiotics. Asymptomatic patients showing organisms should not be treated as some anaerobes are normally present in female genital tract and intestine. If an operation is performed on these areas appropriate antibiotic such as metronidazole should be used as prophylactic in addition to other antimicrobials as 100% of anaerobes were sensitive to metronidazole.

Bacteroides fragilis was the commonest organism isolated followed by anaerobic streptococci and *Clostridium perfringens* was the third common anaerobic bacteria.

Intestinal operations are commonly infected with anaerobes such as Fusobacterium, anaerobic streptococci, and *Bacteroides melaninogenicus* and *B. fragilis* in addition to aerobes[4]. In choosing antimicrobial agents for surgical prophylaxis, Keighley[5] tabulated organisms into aerobes and anaerobes. In colon, *Bacteroides fragilis*, *Bacteroides melanogenicus*, Bifidobacterium species among Gram negatives and peptostreptococcus, peptococcus species and Clostridium species were the Gram positive anaerobes for which metronidazole was suggested as first or second choice in all areas. Antimicrobial prophylaxis should not be considered as a substitute for poor surgical technique[5].

Commonly used broadspectrum aminoglycoside antibiotics such as gentamicin

tobramycin or amikacin have no action on anaerobes[8]. Decreased cell permeability do not allow the aminoglycoside drugs to penetrate the bacterial cell (anaerobic bacteria are resistant because of the absence of the oxygen-dependent active transport system necessary for transport of the drug across the cell)[8]. Anaerobic bacteria are known to produce an offensive odour[5] and volatile fatty acids in vitro and it is this amines that cause the fishy odour released in nonspecific vaginal infection. The rapid presumptive diagnosis of anaerobes from clinical specimens on the basis of volatile fatty acids requires highly trained technical staff and expensive equipment. Anaerobic cabinets may be useful for large laboratories but not for small average laboratory. Pre-reduced plates may be useful to isolate anaerobes Conventional anaerobic jar technique is easy and any technical staff can do this. Most important aspect to be considered is to send the specimens to the laboratory without delay so that air will not kill the anaerobes and laboratory should put up the culture in an anaerobic condition promptly. When submitting pus or swab clinicians should mention the diagnosis or nature of infection such as actinomycosis to ensure longer incubation and special care for Gram stain to look for sulphur granules.

Antibiotics acting on anaerobes such as metronidazole for all anaerobes or penicillin for *Clostridium perfringens* causing gas gangrene, *Clostriaium tetani* causing tetanus, *Clostridium botulinum* causing botulism should be used. In penicillin allergic patients metronidazole or erythromycin should be used. Penicillin discs were used to diagnose *B. fragilis* as this organism is always resistant to penicillin and should not be used in the treatment of *B. fragilis* infections.

In this study it is found that *B. fragilis* and other Bacteroides species come from female genital tract and abdominal operations and hence antibiotic prophylaxis or therapy for operations in these areas should include metronidazole. Metronidazole was found to be bactericidal in another study in Glasgow[9].

Acknowledgements :

The author is grateful to the technical staff and colleagues of Microbiology Laboratory.

References :

1. Chen, K C S, Forsyth, P S, Buchanan, T M and Holmes, K K. *Amine content of vaginal fluid from untreated and treated patients with nonspecific vaginitis.* J Clin Invest, 1979 ; 63:828-835.
2. Cruickshank R, Duguid J P, Marmion, B P and Swain R H A. *Medical Microbiology 12th ed Vol 1.* Edinburgh, London and New York, Churchill Livingstone 1973.
3. de Louvois, J. *The bacteriology and chemotheraphy of brain abscess.* J Antimicrob Chemother, 1978 ; 4:395-413.
4. Gorbach, S L. *Prophylaxis antibiotics indications in surgical patients.* Scand J Infect Dis, Suppl. 1982 ; 36:134-140.
5. Keighley, M R B. *The rational use of antimicrobial prophylaxis in surgery.* Islamic World Med J, 1983 ; 1(2):13-16.
6. McCloskey, R V. *Treatment of anaerobic infections.* J Infection, Suppl, 1979 ; 1:73-75.
7. Phillips, K D, Tearle, P V and Willis, A T. *Rapid diagnosis of anaerobic infections by gas-liquid chromatography of clinical material.* J. Clin Path, 1976 ; 29:428-432.

8. Ristuccia, M A, Cunha A B. *The Aminoglycosides.* Med Clin North Am. 1982 ; 66:303-312.

9. Talukder, M A Samad, Parratt, D, and Sleigh, J D. *The Minimum Inhibitory Concentrations of several antibiotics tested against Bacteroides species.* Bangladesh J Child Health (In press).

10. Taylor, E, Blackwell, A L, Barlow, D and Phillips, I. *Gaydenerella vaginalis, anaerobes and vaginal discharge.* Lancet 1982 ; I:1376-1379.

11. Waldrogel, F A and Vasey, H. *Osteomyelitis: the past decade.* New Eng J Med, 1980 ; 303:360-370.

OCULAR FINDINGS IN AIDS–A REVIEW

Jamal N Ahmed, Khan M A Manzur

Key words :
AIDS : Retinopathy.

Summary :

With other systemic findings ophthalmic manifestations occur with great frequency in individuals with the disease, acquired immune deficiency syndrome (AIDS). Retinal haemorrhages and cotton wool spots are now being considered part of the noninfectious acquired immune deficiency syndrome retinopathy. The overall incidence of ophthalmic lesions was in the same range but the nature of lesions differ in different reported series in America and Africa. This paper attempts to review the subject of contemporary interest on AIDS retinopathy.

Introduction :

The devastating effect, spreading velocity, natural history and ultimate fate of acquired immune deficiency syndrome has made both professionals and public exceptionally frightened. AIDS is characterized by profound alterations in the immune system by the human T cell Lymphotrophic virus III or identical retrovirus infection or Kaposis' sarcoma in previously healthy individuals. Most cases have occured in homosexual or bisexual men between 20 and 50 years of age, with other prominent subgroups being Haitians, hemophilics, intravenous drug abusers, blood recipients and heterosexual contact of individuals with the Acquired Immune Deficiency Syndrome[1]. Since its first identification in America in 1981, the number of cases were doubling every six months and now it is multiplying every year. WHO warned that the dreaded disease AIDS was "Knocking at the door of Asia" and spreading through the rest of the World with no regard for political boundaries. So the public health importance of AIDS is real.

Clinical findings:

With the destruction of body's immune system ocular manifestation occur with great frequency in individuals suffering from AIDS. Groups of investigators in Los Angeles and New York have reported that the prevalence of abnormal ocular findings in patients with the disease ranges between 53% and 73%[2]. Most reports have emphasized the presence of Cotton wool spots in 42% to 53% of cases, along with retinal haemorrhages, Roth spots, cytomegalo virus retinitis, Ocular candidias and Kaposis sarcoma of conjunctiva and eye lids[3]. Focal nonperfusion and microvascular changes seen in Fl. angiography in 100%

1. Dr. Jamal N. Ahmed MBBS, FCPS Resident Surgeon (Eye) SSMC, Mitford Hospital Dhaka.
2. Dr. Khan M A Manzur, DO FRCS Consultant Medina Eye Hospital, Medina Menwar, KSA.

cases. Most patients had no visual complaints unless they had cytomegalovirus involvement of the optic papilla or central retina[8]. Even patients with extensive Ocular abnormalities rarely had ocular symptoms. The overall incidence of Ophthalmic lesions are in the same range but the nature of lesions differs in different reported series in America and Africa[4].

In African patients perivasculits occured but Cytomegalovirus retinitis and ocular involvoment of Kaposis' Sarcoma were not observed (Table—1). This supported the statement of Freeman and O'conour[3] that the retinal haemorrhages and Cotton wool spots should be considered part of what they call non-infectious acquired immune deficiency syndrome retinopathy.

Table—I : *Ocular tnvolement in diffeerent Series of patients with aids.*

Ocular Involvement	Holland & Associate (America)	Freeman & Associate (America)	Kestelyn & Associate (Africa)
No. of Patients	30	26	20
Ocular involrement (%)	63	73	55
Cotton wool spots (%)	53	35	30
Roth spots & Hge (%)	26	08	10
Perivascular sheathing (%)	3	0	15
Cytomegaloretinitis (%)	26	15	0
Conj. Kaposis Sarcoma (%)	10	4	0

Ocular Pathology :

The basic Ocular disorder in acquired immune deficiency syndrome is an ischemic lesion, caused by vasculitis. This vasculitis can be limited to single arterioles, causing cotton wool spots, the most frequent ocular abnormality. It can involve multiple adjacent arterioles, producing more extensive zone of retinal whitening or involve entire retina leading to acute retinal necrosis[4]. The cause of the vaso-occlusive changes of vessels is unclear yet. Possible causes include a direct toxic effect on the vascular endothelium from a viral agent, deposition of circulating immune complex[1], disseminated intravascular coagulopathy, and rheologic problems resulting from increased blood viscosity. Previously it was thought to be due to infection with pneumocystic organism or early infection with cytomegalovirus. The necrosis of the retina may act as an entrance part for a cytomegalovirus infection of the eye, which would explain the high incidence of retinitis caused by this particular opportunistic infection in patients

with acquired immune deficiency syndrome who have this virus[7]. The cotton wool spots are usually found within 6 dise diameter from the Optic nerve incontradiction to those of hypertension, Diabetes mellitus, Leukemia or Collagen disease located as far as the equatorial retina[1]. The pattern of Cotton wool spots changes with the progress of the disease or with the development of inter-current infection, including megalovirus retinitis.

The microvascular changes, including microaneurysm and telangiectasis in posterior pole are less readily visible ophthalmoscopically than by angiography. There are focal leakage from the abnormal microvasculature and also has focal areas of non-perfusion with capillary drop out. These changes provide a pattern of microvascular retinopathy strongly reminiscent of many of the changes seen in Diabetes mellitus. The histologic findings of PAS-positive thickening of blood vessels and pre-capillary arteriolar closure are common in both diseases. Circulating immune complexes are important in the pathogenesis of the angiopathy.

Perivasculitis is not an infectious lesion, but probably part of non-infectious acquired immune deficiency syndrome retinopathy. It is more common in African patients than those of America. One reason may be that in patients with cytomegalovirus retinitis it is difficult to differentiate the perivascular sheathing typical of this disease from non-infectious form. This perivascular sheathing in the periphery of the retina would be an isolated and probably early ocular finding[7]. The comparison between African patients and their American counterparts, who are different in many important respects, such as sex distribution, sexual habits, risk factor and microbiologic environment may lead to a better understanding of the pathogenesis of the ophthalmic lesions in the diseases. A clear insight into the ocular pathology of acquired immune deficiency syndrome in its turn may yield valuable clues to what happens in other parts of the body less accessible to direct and repeated observation than the retina[4].

Conclusion :

Careful Fluorescent angiography and Ophthalmoscopy of individuals at risk for the acquired immune deficiency syndrome might identify very early stages of the disease. Early detection is important in studying the natural progression of the disease and may also be important should intervention become possible.

References :

1. Fauci AS, et al: *Acquired immune deficiency syndrome: Epidemologic, clinical immunological and therapeutic consideration.* Ann Intern Med. 100, 92: 1984.
2. Freeman WR, Lerner CW, Mince JA, et al: *A prospective study of the Ophtholmologic findings in the acquired immune deficieny syndrome.* Am J Ophthalmol 97:133, 1984.
3. Freeman WR, and O. Connor GR, *Acquired immune deficiency syndrome retinopathy.* Am J Ophthalmol, 98:235, 1984.
4. Hayresh SS, *Acute retinal necrosis, letter* Am J Ophthalmol, 97, 661. 1984.
5. Helland G N, Gottlieb M S, and Fees RY, *Retinal cottpn wool Patches in acquired immune deficiency syndrome N.* Engl J Med 307:1704, 1912.

6. Holland G N, Pepose J S, Pettit TH et al: *Acquired immune deficiency syndrome. Ocular manifestations.* Ophthalmology 90:859, 1983.

7. Kestelyn P, Vande Perre P, Reuvroy D. et al: *A prospective study of Ophthalologic findings in the acquired immune deficiency syndrome.* Am J ophthalmol 100:230-238, 1985.

8. Newsome DA, Green WR., Miller ED et al: *Microvascular aspects of acquired immume deficiency syndrome retinopathy.* Am J Ophthalmol, 98:590-601,1984.

(Continued from front inside cover)

Journal article, more than 3 authors :

3. Filler RM, Erakis AJ, Das JB, et al: Total intravenous nutrition. AM J Surg 121 : 454—458, 1976.

Complete Book :

4. Golligher JR. Medical care of the Adolescent (ed.2). New York, Appleton 1966, p, 208—216.

Chapter of book :

5. Nixon HH: Intestinal obstruction in the newborn, in RobC,Smith R(eds). Clincal Surgery, chap 16, London, Butterworth, 1966, p, 168—172.

Chapter of book that is part of pbulished meeting:

6. Natving JB., Kunkel HG, Gedde-Dahl T Jr.: Chain sub-groups of G Globulin, in Killander J (ed) : Gamma Globulins proceedings of the Third Nobel Symposium, New York, Wiley, 1967, pp, 37—54.

7. Okamatsu T. Takayama H, Nakata K, et al : Omphalocele surgery, presented at the meeting of the pacific Association of Pediatric Surgeons, San Diego, April 1973.

Proofreading:

Contributors may be asked to proofread the galley proofs for typesetting errors. Important changes in data are allowed, but authors will be charged for excessive alterations in proof. Galley proofs should be returned within 24 hours.

Reprints:

Reprints of articles will be furnished to contributors when ordered in advance of publication. An order from, showing cost of reprints, is sent with proofs. Individuals wishing to obtain reprints of an article can do so by contacting the author at the address given in the journal.

OSTEOPETROSIS--A CASE REPORT

Abul Hussain Khan Chowdhury[1] Quamarul Huda[2] Jalilur Rahman[3]
Tarek al Nasir[4] Quais Ahmed[5]

Key words :

Osteopetrosis, case report.

Summary :

A case of Osteopetrosis, benign form, is described. Clinical features were not typical of the disease. Confusion was there regarding the possibility of carcinoma of prostate with metastases. But detail investigations ultimately led to final diagnosis.

Introduction :

Osteopetrosis was first described by Albers Shoenberg in the year 1904 (Ferguson, 1975). This is also known as Albers Shoenberg disease or Marble-bone disease.

The disease may be inherited as autosomal dominant or recessive. The dominant variety is benign, heterogenous, and relatively common (Johnson et al, 1968), while recessive variety is precocious, potentially lethal and rare (Dent, Smellie, Watson, 1965). Both sexes are affected equally. In wide sense, the disease is characterised by increased skeletal density and abnormalities of bony modelling. Medullary cavities are gradually filled up with bones which become brittle. (Shapiro et al, 1980)

The underlying defect is lack of normally functioning osteoclasts responsible for bone resorption. (Teitelbaum et al, 1981). It has been shown that defects in neutrophils and monocytes may reflect defects in osteoceast function (Clair et al, 1986).

Uptil now, no case of osteopetrosis has been reported in our literature. In recent past, only one case was reported in India which was of autosomal recessive variety (Andreas et al, 1985).

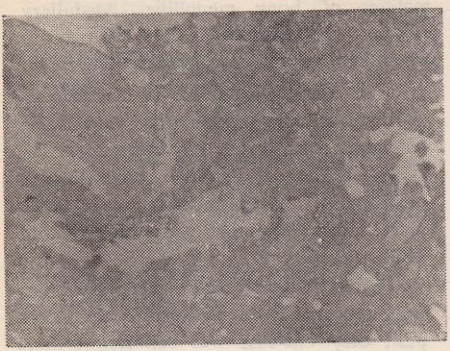
So, considering the rarity of the disease, we decided for reporting it.

Case Report :

A man of 70 years from old Part of Dhaka city was doig well with his government job until one year back. Then he developed pain all over the body which was accompanied by low grade fever. He was treated symptomatically without proper investigation. He was admitted into medical unit in IPGMR during the first week of May, 1987 with these problems.

1. Abul Hussain Khan Chowdhury, Resident Medical Officer.
2. Quamarul Huda, Professor of Medicine.
3. Jalilur Rahman, Assistant Professor of Haematology.
4. Tarek al Nasir, Assistant Professor of Pathology.
5. Quais Ahmed, Medical Officer.
Institute of Post-Graduate Medicine & Research, Dhaka.

He complained of loss of appetite three months back but there was no history of vomiting, haematemesis or malaena. He also noticed significant weight loss during the same period. He gave no history suggestive of diabetes mellitus or chronic respiratory disease. After few days of admission he developed retention of urine which was relieved by catheterization. Concerned surgeon found out prostatic abscess which was drained properly. Few days later again he developed retention of urine. And second opinion was in favour of prostatic malignancy.



On examination he was found moderately pale but there was no lymphadenopathy. Bony tenderness could not be elicited anywhere in the body. Examination of other systems was unrewarding.

His haemoglobin was 5 g%, ESR 60 mm, Total count 7,500/cumm, P 78, L 20, M 1, E 1, Platelet count 170 X 10^9/L. Peripheral blood film showed occasional nucleated red cells and myelocytes. Stool and urine examinations were normal. Blood sugar was 5 mmol/L, Urea 4 mmol/L, S. Calcium 7.8 mg%. S. Phosphate 1.5 mmol/L, S. Alkaline phosphatase 12 K. A. U. & Acid phosphatase 2.1 K. A. U. Skiagram chest showed osteosclerotic changes in clavicles,ribs, thoracic vertebrae. Similar changes were also present in pelvic bones, lumbar vertebrae and upper parts of femur. X-ray of hands and feet showed no remarkable change. Barium enema of colon was normal. Sigmoidoscopy could not reveal any abnormality, ultrasonography showed prostatic enlargement. Bone scanning could not be done due to non availability of isotope. No marrow material was found after repeated attempts for aspiration and trephine biopsy gave results in favour of osteopetrosis. Biopsy from prostate gland could not be taken as patient left hospital without our consent.

He was given two units of blood and other symptomatic treatment.

Discussion :

Clinical features of two types of osteopetrosis vary. In autosomal recessive or malignant type patients may present with severe anaemia & bleeding manifestations due to marrow involvement. Hepatosplenomegaly develops and cranial nerve palsies can occur in later stages. Due to fragility of bones painless pathological fractures often occur. Death usually occurs in first decade due to severe infections or haemorrhages (Beighton et al, 1977).

The autosomal dominant or benign type of osteopetrosis tarda has wide geographic and ethnic distribution. The affected individuals may remain totally asymptomatic and often diagnosed by chance when radiographs are taken for some other purpose (Beighton et al, 1977).

The facies, body stature and general health are usually normal. Sometimes mild

anaemia can occur. Pathological fractures and cranial nerve palsy can occur in a proportion of patients. The patient described here presented with generalised pain, anorexia, weight loss which led us to consider possibility of some malignant process. But investigations could not reveal any significant disease in gastrointestinal or respiratory system. Routine radiological investigations showed osteosclerotic changes in certain bones which gave a idea to consider presence of carcinoma of prostate as a common cause. But opinion varied regarding the cause of prostatic enlargement after per rectal examination.

Our case belongs to autosomal dominant variety of osteopetrosis because of features mentioned in previous paragraphs. Now, if we analyse the case retrospectively, possibility of carcinoma of prostate becomes very unlikely. In presence of bony metastases from prostatic carcinoma, level of S. acid phosphatase should rise as a routine (Klein, 1979). But here, it was repeatedly found to be within normal limit.

Moreover, bone biopsy and subsequent histological examination was conclusive, where there was no evidence of metastatic carcinoma cells rather marrow cavity was filled up by bony tissue. Again, importance of rectal examination cannot be stresed too strongly (Guinan et al 1980) because induration over posterior surfaces of lateral lobes may be due to fibrous areas in benign prostatic hyperplasia or to focal infarcts. And midline furrow between lateral lobes may be obscured by benign or malignant enlargement.

Regarding treatment, allogenic bone marrow transplantation has shown some improvement in children in malignant variety (Seiff et al, 1983). This form of treatment has also been recommended for juvenile osteopetrosis (Sorell et al, 1981).

Treatment of benign type of patients is mainly symptomatic.

Acknowledgement :

We want to acknowledge the services rendered by Prof. K. M. Nazrul Islam, Prof. of Pathology, Prof. M. A. Rashid, Professor of Haematology, Prof.Md. Rezaul Mustafa, Professor of Radiology in investigating the case. Our thanks are due to Dr. Golam Nabi who looked after the patient and SK. Nur Mohammad for secretarial assistance.

References :

1. Andreas A, Maniamma I, Thilak G : *Osteopetrosis*: J Assoc phys India, 33: 490-91 ; July, 1985.
2. Beighton P, Horan F, Mamersma H : *A review of the osteopetroses.* Postgr Med J, 53:507-15 ; 1977.
3. Clair J B, Lyndon K, Peter E, et al: *Neutrophil defect associated with malignant infantile osteopetrosis.* J Lab Clin Med 108:498-505; 1986.
4. Dent, D E; Smellie J M, Watson L. *Studies in osteopetrosis.* Arch Dis Child 40:7-10; 1965.
5. Ferguson B. *Metabolic and generalised orthopaedic conditions. In Ferguson, B. ed. Orthopaedic surgery in infancy and childhood,* 4th ed. Baltimore: Williams and Williams ; 1975: 604-607.
6. Guinan P et al: *Accuracy of rectal examination in diagnosis oj prostatic carcinoma.* N Eng J Med 303: 499-100; 1980.
7. Johnson, C. C. et al: *Osteopetrosis: A clinical, genetic, metabolic and morphologtc study of dominantly inherited benign form.* Medicine 47:149-52, 1968.

8. Klein L A: *Prostatic carcinoma.* N Eng J Med 300:824-26; 1979.

9. Seiff C A, Levinsky R J, Rogers D W et al: *Allogenic bone marrow transplantation in infantile malignant osteopetrosis.* Lancet 1:437-38; 1983.

10. Sorell M et al: *Marrow transplantation for juvenile osteopetrosis.* Am J Med 70: 1280-82; 1981.

11. Shapiro F; Glimcher M J, Holtrop M E et al: *Human osteopetrosis—a biological, ultrastructural, biochemical study.* J Bone Joint Surg 62:384-87; 1980.

12. Teitelbaum S L, Coccia P F, Brown D M, Kahn A J. *Osteopertrosis: a disease of abnormal osteoclast proliferation.* Metab Bone Dis Relat Res 3:99-100; 1981.

Abstracts from current literature available in BCPS library

Long-term observations of cervical cancer

Arneson AN and Kao MS. Am J Obstet Gynecol, 1987 ; 156 : 614-25

A consecutive series of approximately 1100 patients, treated for cancer of the cervix over a span of 45 years, presents an increasingly favourable stage distribution. Emergence of exfoliative cytology as a diagnostic technique accelerates allocation of new patients to Stage I. Cumulative rates of dying from cervical cancer equate improved survival in terms of differences in prognosis and in effectiveness of treatment. Long-term observations bring into focus interval changes affecting the reservoir of individuals remaining at risk, which is maintained in accrodance with rates of new patient inflow, as well as withdrawal for all categories of attrition. The factors determining that balance, including age at diagnosis of cervical cancer, do not fall equally on all clinical stages. Age, a dominant factor determining incidence of second primary malignancies, may also have significance in unraveling the obscure etiology of corporeal malignancies evolving among patients irradiated in the treatment of cervical cancer.

Pelvic laparotomy without an indwelling catheter ; a retrospective review of 949 cases

Bartzen PJ and Hafferty FW. Am J Obstet Gynecol, 1987 ; 156 : 1426-32

A retrospective review of 949 cases of pelvic laparotomy without an indwelling catheter was conducted. Contrary to traditional beliefs, this study found that the use of an indwelling catheter was not necessary to ensure either adequate exposure during operation or satisfactory voiding in the postoperative period. Various prophylactic steps included staff attention to the preoperative and postoperative voiding needs of patients and occasional bladder needling during operation. These efforts resultep in a low (22.1%) postoperative distress catheterization rate with no complications if needling was done. Urinary infection rates ranged from $<1\%$ for patients who did not require distress catheterization to 3.9% for a comparative population of patients who had an indwelling catheter during and after operation. Abstaining from the use of an indwelling catheter was also associated with lower cost and greater patient satisfaction.

Infertility surgery for pelvic inflammatory disease : success rates salpingolysis and salpingostomy

Carey M and Brown S. Am J Obstet Gynecol 1987 ; 156:296-300

Eighty-seven patients with infertility due to pelvic inflammatory disease were retrospectively studied to determine pregnancy rates after infertility surgery. Patients were divided into groups on the basis of the type of surgical procedure: group 1, lysis of adhesions only (22 patients) ; group

2, terminal salpingostomy with lysis of adhesions (65 patients). A significantly greater number of patients in group 1 (nine of 22, 41%) than in group 2 (12 of 65, 18%) ($p < 0.05$) achieved intrauterine pregnancy. The incidence of ectopic pregnancy was 23% in group 1 (five of 22) and 9% in group 2 (six of 65) ($p = 0.12$). Almost all pregnancies that were conceived more than 16 months after operation were ectopic gestations. Patients were classified according to severity of disease on the basis of several factors. Although few patients with severe pelvic inflammatory disease conceived after operation, the effect of disease severity on the likelihood of successful operation was not statistically significant.

Hepatitis B: a case for prenatal screening of all patients

Cruz AC, et al. Am J Obstet Gynecol, 1987 ; 156 : 1180-3

Evaluation of a mass screening program to detect hepatitis B surface antigen in the obstetric population of Shands Hospital, University of Florida in Gainesville, from January 1, 1983, through December 31, 1985, was undertaken. Prevalence of hepatitis B surface antigen seropositivity was 0.54%. Review of medical records revealed that 67% of patients with positive hepatitis B surface antigen screens had no risk factors identifiable by routine prenatal history. Although all patients were screened on admission to the hospital, the results of the immunoassay were not available in time for staff to institute isolation procedures for the laboring mother or unwashed neonate. In 82% of the cases, treatment of neonates occurred later than 12 hours after delivery (the current Centers for Disease Control recommendation). It is recommended that prenatal screening of all patients with a hepatitis B surface antigen immunoassay be done by 34 weeks gestation where the patient population is of predominantly low socioeconomic status to ensure appropriate isolation and timely neonatal immunoprophylaxis.

Massive genital and vaginal vault prolapse treated by abdominal-vaginal sacropexy with use of Marlex mesh: review of the literature

Drutz HP and Cha LS. Am J Obstet Gynecol 1987 ; 156:387-92.

Two patients with massive procidentia and 13 patients with posthysterectomy vaginal vault prolapse underwent surgical procedures at Mount Sinai Hospital, Toronto, between May 1978 and February 1986. The standard procedure consisted of an abdominal sacropexy, with use of Marlex mesh to anchor the vaginal vault to the sacral promontory and retroperitonealization of the mesh. In 11 of the 15 patients, one or more concurrent procedures were performed at the same time. There were no intraoperative complications. One serious postoperative complication occurred, and one patient developed recurrent vault prolapse. Follow-up has been from 3 to 93 months with an average of 28 months. In 14 patients (93.3%) subjective and objective improvement was achieved. A review of the literature is presented.

Overview of the efficacy of hormonal replacement therapy

Ettinger B. Am J Obstet Gynecol 1987, 156:1298-303.

The most widely recognized reason for prescribing estrogen for menopausal women is for control of symptoms. Estrogen effectively reduces the vasomotor,

somatic, and associated psychologic components of the menopausal syndome. Recently, however, the role of estrogen in the prevention of disease, particularly osteoporosis, urogenital atrophy, and atherosclerotic cardiovascular disease, has prompted eonsideration of this treatment for a more long-term goal. Bone loss occurring after menopause can be prevented by the use of estrogen; this significantly reduces the morbidity and mortality of associated fractures. Atrophic changes, which can occur earlier in the menopause than previously recognized, also respond to estrogen treatment. Atherosclerotic risk profiles are improved by estrogen replacement: blood pressure is lowered, total cholesterol and low density lipoprotein cholesterol are reduced, and high-density lipoprotein cholesterol is increased. Most studies have found that the incidence of angina or myocardial infarction is lower in estrogen users than in nonusers, and overall mortality rates from cardiovascular disease appear to be reduced as well.

The diagnostic value of hysterosalpingography and hysteroscopy in infertility investigation

Fayez JA, et al. Am J Obstet Gynecol 1987, 156:558-60.

Four hundred infertile patients had hysterosalpingography and hysteroscopy as part of their infertility workup. A comparison between the findings of these two procedures was carried out to study their diagnostic value in female infertility investigation. It was found that hysterosalpingography was as accurate as hysteroscopy in the diagnosis of normal or abnormal uterine cavities while the nature of the intrauterine filling defects was accurately revealed by hysteroscopy only. It is concluded that hysterosalpingography is an important screening procedure for the diagnosis of normal or abnormal uterine cavities and that hysteroscopy should be reserved only for the confirmation and treatment of intrauterine anomalies discovered by hysterosalpingography. Therefore, we look at the two procedures, hysterosalpingography and hysteroscopy, as complementary techniques.

Endocrine changes after laparoscopic ovarian cautery in polycystic ovarian syndrome.

Greenblatt E and Casper RF. Am J Obstet Gynecol 1987, 156 : 279-85.

Recently, laparoscopic ovarian cautery has been described as a method of ovulation induction in women with polycystic ovarian disease. In an attempt to determine the mechanism of action, serum levels of androstenedione, testosterone, luteinizing hormone, follicle-stimulating hormone, and estradiol were determined before and after the laparoscopic ovarian cautery in six women with polycystic ovarian disease who had failed to ovulate with clomiphene citrate and human chorionic gonadotropin. Six regularly cycling women undergoing laparoscopy for investigation of infertility or tubal ligation served as controls. In patients with polycystic ovarian disease but not in controls, serum androstenedione, testosterone, estradiol, and luteinizing hormone significantly decreased to nadir levels on postoperative days 3 and 4. In contrast follicle-stimulating hormone levels rose after operation. These results resemble those reported after ovarian wedge resection. Of the six treated women, five ovulated postoperatively and four conceived. Laparoscopic ovarian cautery appears to be a promising alternative treatment for patients with polycystic ovarian

disease in whom initial medical management fails.

Shoulder dystocia: predictors and outcome : a five-year review.

Gross S J, et al. Am J Obstet Gynecol 1987, 156 : 334-6.

Shoulder dystocia is an uncommon complication of delivery with a high morbidity rate. Ninetyone cases were coded for shoulder dystocia at the Toronto General Hospital from 1980 through 1985. True shoulder dystocia was found in 24 cases, an incidence of 0.23%. There was no significant difference in average weight and percentage of macrosomia between cases of true shoulder dystocia and those merely coded as such. True shoulder dystocia was associated with a neonatal morbidity rate of 42%, consisting of a respiratory arrest and neurological and orthopedic damage. Fundal pressure, in the absence of other maneuvers, resulted in a 77% complication rate and was strongly associated with orthopedic and neurologic damage. Delivery of the posterior shoulder and the corkscrew maneuver were associated with good fetal outcome.

Preliminary report on the use of tamoxifen in the treatment of endometriosis.

Haber GM and Behelak YF. Am J Obstet Gynecol 1987, 156: 582-6.

Tamoxifen, an antiestrogen, was used in the treatment of two women with a long-standing history of endometriosis. After 6 month period of treatment, both patients were symptom free and both showed a marked decrease in the size of their endometriotic lessions. It was significant that ovulation was documented in both patients while receiving the treatment regimen. The use of tamoxifen as an alternative modality in the treatment of endometriosis, especially for women desiring to conceive, is discussed.

Single-dose cephalosporin for prevention of major pelvic infection after vaginal hysterectomy: cefazolin versus cefoxitin versus cefotaxime.

Hemesell DL, et al. Am J Obstet Gynecol 1987, 156: 1201-5.

Antimicrobial over utilization accelerates the development of bacterial resistance. A prospective, randomized, blinded clinical trial of vaginal hysterectomy prophylaxis was designed to compare the efficacy, safety, and cost of cefazolin with those of cefoxitin and cefotaxime. Sixteen women (7.5%) developed febrile morbidity only, 10 (4.7%) developed major pelvic infection requiring parenteral antimicrobial therapy, and neither clinical nor laboratory adverse reactions of significance were observed. Anemia, diabetes, and additional surgical procedures were associated with a significantly increased incidence of postoperative infection ; no regimen was more protective for women with or without these risk factors. Infections almost doubled hospital stay and the charges for health care. Diagnosis-related group reimbursement would have been more than $ 1,300 less than the mean hospital charge for women who developed infection. Utilizing cefazolin for prophylaxis and reserving cefoxitin and cefotaxime for therapy is cost and antimicrobial efficient.

Nonsurgical therapy to preserve oviduct function in patients with tubal pregnancies.

Ichinoe K, et al. Am J Obstet Gynecol 1987 ; 156 : 484-7

Surgical treatment for tubal pregnancies greatly impairs the subsequent fertility of

patients because of salpingectomy and its complicated adhesions. Nonsurgical methotrexate therapy was developed to avoid such complications. Although early detection was of prime importance, resolution of ectopic pregnancy was obtained in 22 patients (95.7%) with methotrexate administration alone. Potency of the oviducts was evaluated with hysterosalpingography and/or laparoscopy in 19 patients after termination of methotrexate treatment. In 10 of 19 patients (52.6%), complete patency of the involved oviduct confirmed the validity of this regimen. Severe side effects were not observed in any of the 23 patients.

Single-dose antimicrobial therapy in the treatment of asymptomatic bacteriuria in pregnancy

Jakobi P, et al. Am J Obstet Gynecol, 1987 ; 156 : 1148-52

Fifty obstetric patients with asymptomatic bacteriuria were treated by single-dose antimicrobial therapy. The immediate cure rate was 84% and the recurrence rate was 12%. Seven of the eight patients in whom single-dose treatment failed responded to subsequent 7-day therapy with the same drug, indicating renal involvement. A 50% recurrence rate in the group of patients in whom single-dose treatment failed was compared with a 5% recurrence rate in the group cured by single-dose therapy, which indicates that failure with single-dose antimicrobial therapy can serve as a therapeutic test to identify patients at high risk for recurrent bacteriuria and its sequelae during pregnancy. It is concluded that single-dose antimicrobial therapy is a safe and effective way to treat asymptomatic bacteriuria in pregnant patients without urologic problems in their history.

The effect of oxytocin injection into the umbilical vein for the management of the retained placenta

Kristiansen FV, et al. Am J Obstet Gynecol 1987 ; 156 : 979-80

In a single-blind study 51 patients with retention of the placenta were randomized into one of three groups: Group 1 was given 10 IU of oxytoxin in 10 ml of sodium chloride into the umbilical vein; Group 2 was given 10 ml of sodium chloride; Group 3 was treated with manual removal of the placenta. No significant differences were rrecorded in groups 1 and 2, and no advantages were found in comparison with the procedure normally used.

Antenatal sonography of fetal malformations associated with drugs and chemicals: a guide.

Koren G, et al. Am J Obstet Gynecol 1987, 156: 79-85.

A guide presented in this article provides the sonographer with a list of fetal malformations that have been described in association with specific drugs or chemicals and that can be visualized by current ultrasonographic techniques.

Fine-needle aspiration of the breast: the outpatient management of breast lesions.

Lee GF. Am J Obstet Gynecol 1987, 156: 1532-7

Fine-needle aspiration of the breast has become a well-accepted diagnostic tool for the management of breast lesions. When employed on an ambulatory basis it is both accurate and cost-effective. This study of a series of patients managed over a 2-year period demonstrates the use of this technique in an ambulatory gynecologic practice. Results demonstrate this to be a very rapidly accomplished, effective procedure

that is very well accepted by the patients. Results are generally available within 24 hours and permit both the physician and the patient to accurately predict the course of management. In addition, it allows the primary physician to accurately determine which patients will require in-hospital management and which may safely undergo ambulatory office-based biopsy of solid lesions. Experience shows this to be valuable diagnostic tool that can be safely utilized by the practicing gynecologist.

Estrogen therapy in the prevention and management of osteoporosis.

Lindsay R. Am J Obstet Gynecol 1987; 156; 1347-51

Many studies have shown that bone loss accelerates after oophorectomy or the menopause. If estrogen replacement therapy is instituted soon after the onset of these changes, much of this bone loss, and subsequent fractures, can be prevented. Most investigations have evaluated the effects of oral estrogens, but other routes of administration may be equally beneficial. The use of estrogens natural to the human also seems preferential. Several theories have been advanced regarding the mechanism of action of estrogen in this population. The most popular concept holds that estrogen stimulates calcitonin production, but other theories also must be considered since this is controversial and far from proven. A local action of estrogen on the skeleton can not be ruled out. In addition to estrogen, calcium supplementation and excercise may have roles to play in the prevention and management of osteoporosis.

Outpatient management of ectopic pregnancies.

Loffer FD. Am J Obstet Gynecol 1987 ; 156: 1467-72.

The number of ectopic pregnancies has dramatically increased over the past several years. Newer diagnostic methods have resulted in earlier detection and an increase in the percentage of cases without rupture. Early diagnosis allows not only the option of conservative operation but also management of many cases on an ourpatient basis. This article reviews the last 23 ectopic pregnancies that personally managed and discusses the management that allowed outpatient care in 15 of these patients. In retrospect, all but two patients could probably have been discharged directly home.

Tocolysis with oral magnesium.

Martin RW, et al. Am J Obstet Gynecol 1987 ; 156:433-4

Seventeen patients in whom uterine activity responded favorably to parenteral magnesium sulfate were given oral magnesium gluconate for continued tocolysis. The mean serum magnesium level before therapy was 1.44 ± 0.22 mg/100 ml, whereas 2 hours after initiation of oral magnesium it was 2.16 ± 0.32 mg/100 ml ($p < 0.05$). One patient had nausea without vomiting or diarrhoea. These data suggest that magnesium ingested orally can aise the serum magnesium level significantly.

Breech delivery : why the dilemma ?

Myers SA and Gleicher N. Am J Obstet Gynecol 1987, 156 : 6-10.

A critical review of selected studies of breech delivery is presented with special attention to the statistical analysis of outcome

for low birth weight and term breech delivery. Analysis of the data fails to support the routine use of cesarean birth for all cases of breech delivery excpt for those with hyperextension of the head. The implication of these findings is discussed.

The physiology and measurement of hot flushes.

Rebar RW and Spitzer IB. Am J Obstet Gyncol 1987, 156 : 1284-8.

Hot flushes occur in the vast majority of women at menopause or after bilateral oophorectomy. Yet only in the last decade have the physiologic changes associated with hot flushes been identified. It is now clear that hot flushes occur together with pulsatile release of luteinizing hormone. Available data implicate the anterior hypothalamus in the pathogenesis of the hot flush and suggest involvement of catecholamines and endogenous opiates. Estrogen withdrawal appears to be the stimulus to the development of hot flushes in susceptible women, and likewise estrogen is the most effective agent in reducing the frequency and intensity of the hot flush.

Intrauterine administration of methyl cyanoacrylate as an outpatient of permanent female Sterilization

Richart RM, et al. Am J Obstet Gynecol, 1987 ; 156 : 981-7

Results are presented of multicenter studies on the intrauterine delivery of 0.6 ml methyl cyanoacrylate with the FEMCEPT device (BioNexus Inc., Raleigh, North Carolina) for the purpose of causing permanent obstruction of the fallopian tubes. The studies included 1279 women and were conducted under several different protocols that required either one or two methyl cyanoacrylate application procedures. Based on hysterosalpingograms obtained about 16 weeks after the last methyl cyanoacrylate application, one precedure resulted in a tubal closure rate of 71.4% and two procedures resulted in a tubal closure rate of 89.4%. Complications of the procedure were infrequent and none required surgical treatment. Cumulative pregnancy rates among women with hysterosalpingoram-demonstrated bilateral tubal closure were similar for the one and two-application procedures that used nonradiopaque methyl cyanoacrylate and were significantly lower ($p<0.05$) compared with a single application of radiopaque methyl cyanoacrylate. The 3 year pregnancy rate for two applications of nonradiopaque methyl cyanoacrylate was 1.7 ± 1.2 per 100 women.

Abruptio placentae: clinical management in nonacute cases

Sholl JS. Am J Obstet Gynecol, 1987 ; 156: 40-51.

One hundred thirty cases of clinically diagnosed abruptio placentae encompassing the wide range of acuity were grouped by gestational age at delivery into previable, preterm, and term divisions for comparison of demographic data, presenting symptoms, delay to delivery, mode of delivery, and delivery indications. Attention was focused on the preterm group of patients to assess the implications of presenting symptoms, the usefulness of ultrasonography and the safety and efficacy of tocolysis. Cigarette smoking and a previous poor obstetric history were found to be more frequent in the preterm compared to the term abruptio placentae. Ultrasonic visualization of a clot was successful in

onset of symptoms> 14 days after the last menstrual period. The onset of symptoms relative to the first day of the last menstrual period differed in these two groups of patients ($p < 0.01$). Patients who were spared unnecessary laparotomy had significantly diminished hospital stays ($p < 0.001$). Laparoscopy was found to be a safe and effective way to diagnose acute appendicitis in women of reproductive age, and its liberal use is recommended.

The efficacy of intrapartum electronic fetal monitoring

Thacker SB. Am J Obstet Gynecol 1987, 156 : 24-30

With basic methodologic criteria as a framework, this report assesses the quality of the seven randomized controlled clinical trials conducted in five countries to compare a policy of routine electronic fetal monitoring with a policy of fetal heart rate monitoring by auscultation. One trial found a statistically significant decrease in the occurrence of neonatal seizures in the electronic fetal monitoring group. The trials demonstrated no other statistically significant benefit associated with the use of electronic fetal monitoring, but most reported significant increases in the rates of abdominal and vaginal operative deliveries associated with electronic fetal monitoring. Taken together, the seven trials provide valuable information about the routine use of intrapartum electronic fetal monitoring: they do not demonstrate that it is a useful screening procedure for all women in labor.

Controversies concerning the safety of estrogen replacement therapy

Whitehead MI and Fraser D. Am J Obstet Gynecol 1987, 156 : 1313-22.

Unopposed estrogen replacement is known to cause endometrial carcinoma in a small percentage of postmenopausal women, but the effects on ovarian and breast tissue remain uncertain. The increased risk of endometrial carcinoma seems to be related to both the dosage and duration of unopposed estrogen treatment. Until very recently, the morbidity and costs that result from the need for endometrial biopsy because of abnormal bleeding and from the need for hysterectomy due to hyperplasia have been ignored, but recent data suggest that they are likely to be considerable. Progestogens are known to protect against endometrial hyperstimulation, but the optimal duration of therapy each month and the maximally protective agent and dose remain to be determined, Estrogen replacement therapy may reduce the risk of arterial disease ; however, the comparative effects of the various preparations, as well as their respective mechanisms of action must be subjected to further study.

Blood transfusion and recurrence of cancer of the colon and rectum

Francis DMA and Judson RT. Br J Surg 1987, 74 : 26-30

Clinical and experimental studies indicate that transfusion of allogeneic blood has immunomodulating properties, that the behaviour of some tumours may be influenced by the immune system of the host. Eighty-seven patients who had undergone 'curative' resection of cancer of the colon or rectum were studied retrospectively to

25% of the preterm patients but otherwise appeared to have little or no impact on course or management. Tocolysis for the preterm patients appeared to be beneficial in prolonging gestation and did not increase the likelihood of cesarean delivery, hemorrhage, or fetal distress. The cumulative rates of delivery following admission were compared with and without tocolysis, with and without sonographic visualization of a clot, and overall as a function of gestational age at initial hospitalization. Perinatal martality was 17%. Inpatient management with frequent fetal heart rate monitoring, tocolysis if indicated, and timely use of cesarean delivery are advocated to promote prolongation of the pregnancy and minimized perinatal mortality.

Predictors of vaginal delivery in patients with a previous cesarean section, who require oxytocin

Silver RK and Gibbs RS. Am J Obstet Gynecol, 1987 ; 156 : 57-60

Prospective analysis of 98 consecutive patients at term pregnancy with one previous cesarean section, who received oxytocin during a trial of labor (34 inductions, 64 augmentations), was undertaken to idecntify specific factors associated with successful vaginal delivery. The overall vaginal delivery rate was 59.2%. Comparing route of delivery in the induction and augmentation groups separately revealed no significant differences in maternal height, weight, or parity, duration of membrane rupture, length of oxytocin treatment or maximum dose, cervical examination on admission or before oxytocin treatment or use of conduction anesthesia. A previous vaginal delivery favored repeat vaginal delivery in patients with augmentation while a nonrecurrent indication was significantly associated with vaginal delivery in all patients. After the beginning of oxytocin augmentation, the cervical dilatation rate was 1.82 cm/hr in patients delivered vaginally, compared with 0.18 cm/hr in those requiring cesarean section ($p<0.001$). Any cervical dilatation during the first 2 hours of augmentation was associated with more frequent vaginal delivery: 24 of 40 vaginal deliveries (60%) versus six of 24 cesarean sections (25%, $p<0.01$). Discriminant analysis correctly identified route of delivery in 85.3% of those with induction and 87.5% of patients with augmentation. During a trial of labor, oxytocin induction or augmentation is effective in a majority of patients. Furthermore, an early response during augmentation is of predictive value when such patients are being managed.

Laparoscopy—a diagnostic aid in cases of suspected appendicitis ; its use in women of reproductive age

Spirtos NM, et al. Am J Obstet Gynecol 1987, 156:90-4

In women of reproductive age the usefulness of laparoscopy in diagnosing acute appendicitis was evaluated. Eighty-six women underwent diagnostic laparoscopy. There was complete visualization of the appendix in 93% of the patients. Twenty two patients were spared laparotomy. In the nonpregnant patients, salpingitis was the disease most often confused with appendicitis. Eighty-five percent of the patients with salpingitis had the onset of symptoms within 14 days of the last menstrual period, whereas acute appendicitis was found in 86% of the patients with the

determine whether blood transfusion adversely affected the rate of cancer recurrence. Fifty-three patients (61 per cent) were transfused and 34 were not. The transfused and non-transfused groups were comparable in terms of age, sex duration of follow-up, mode of presentation, stage of disease and haemoglobin level at discharge from hospital, and differed in admission haemoglobin and distribution of tumour locations (right-or left-side colonic or rectal tumours). Recurrent malignancy was detected in 36 per cent of transfused patients and 26 per cent of non-transused patients ($p > 0.1$), There was no association between the number of transfusions and recurrence for any tumour site or stage. The incidence of recurrence was significantly higher in those patients who received transfusions during surgery than in those who received transfusion either before or after surgery ($X^2 = 7.01$, d.f. = 1, $p < 0.01$) or no transfusions ($X^2 = 4.23$, d.f. = 1, $p < 0.05$). The study indicates that factors influencing the need for blood transfusion during operation had a greater bearing on prognosis than receipt of a blood transfusion per se and that future prospective studies investigating the association between transfusion and cancer recurrence need to determine accurately the indications for transfusion.

Cholesterol and mortality ; 30 years of follow-up from the Framingham study

Anderson KM, et al. J Am Med Asso 1987, 257 : 2176-80

From 1951 to 1955 Serum cholesterol levels were measured in 1959 men and 2415 women aged between 31 and 65 years who were free of cardiovascular disease (CVD) and cancer. Under age 50 years, cholesterol levels are directly related with 30-year overall and CVD mortality; overall death increases 5% and CVD death 9% for each 10 mg/dl. After age 50 years there is no increased overall mortality with either high or low serum cholesterol levels. There is a direct association between falling cholesterol levels over the first 14 years and mortality over the following 18 years (11% overall and 14% CVD death rate increase per 1 mg/dl per year drop in cholesterol levels). Under age 50 years these data suggest that having a very low cholesterol level improves longevity. After age 50 years the association of mortality with cholesterol values is confounded by people whose cholesterol levels are falling—perhaps due to diseases predisposing to death.

Preexposure immunization with intradermal human diploid cell rabies vaccine ; risk and benefits of primary and booster vaccination

Bernard KW, et al. J Am Med Asso 1987 ; 257 : 1059-63

Intradermal human diploid cell rabies vaccine (ID HDCV) was licensed for preexposure use in the United States on May 30, 1986. We studied the safety and efficacy of this newly approved route and dose of administration. Serologic results were available from 112 (90%) of the 124 persons who participated in an HDCV low-dose preexposure study in which five different ID, intramuscular (IM), and subcutaneous primary immunization regimens were administered. Three 1.0 ml IM doses of vaccine resulted in titers similar to those from three 0.1 ml ID doses when compared 49 days, one year, and two years after primary immunization. Uniformly high postbooster titers occurred in all five

groups when ID booster were administered at one year or two years. Adverse reactions were similar following both ID and IM vaccination. Although ID HDCV can be a cost-effective substitute for IM vaccine, excessive use of unnecessary preexposure booster doses by any route may be inadvisable because of systemic allergic reactions. In addition, poor immune responses to HDCV have been documented in persons vaccinated in some developing countries. This may limit the use of low-dose regimens in some places.

Survival analysis of patients undergoing dialysis

Held PJ, et al. J Am Med Asso 1987 ; 257: 645-50

We analyzed the five-year survival of 4661 patients with end-stage renal disease whose first dialysis occured in 1977. The analysis incorporated characteristics of patients and dialysis institutions. Results showed that mortality was positively correlated with patient age, initial conditions leading to renal failure, being male and white, open staffing, and the number of staff physicians. In addition, lower death rates were observed for patients treated in larger dialysis units and units that had been long-term reusers of dialyzers. Patients treated in for-profit and not for-profit units appeared to have the same mortality, although patients treated in freestanding units had lower mortality. The direction of causation was not always clear in these results.

Trends in surgical revascularization for renal artery disease ; ten years' experience

Novick AC, et al. J Am Med Asso 1987, 257 : 498-501

We reviewed our experience with surgical revascularization (SR) for renal artery disease (RAD) in 361 patients from 1975 through 1984 to illustrate the evolving role of SR in the management of these patients. The time intervals selected for comparison were 1975 through 1980 (n=174) and 1981 through 1984 (n=187). Since 1981, in patients with atherosclerosis, SR has been done more often in elderly patients (30% vs 10.4%), in patients with generalized atherosclerosis (87% vs 73%), and for the sole purpose of preserving renal function (36% vs 14%). Since 1981, fewer patients with atherosclerosis have undergone SR solely to treat renovascular hypertension (26% vs 41%). Since 1981, in patients with fibrous dysplasia, SR has been done in more patients with branch renal artery disease (70% vs 28%). These trends in the performance of SR have been done due to the advent of percutaneous transluminal angioplasty as effective therapy for certain patients, improved results of SR in elderly patients with atherosclerosis, an enhanced appreciation of advanced atherosclerotic RAD as a correctable cause of renal failure, and the development of more effective techniques for SR in patients with severe aortic atherosclerosis and branch RAD. The overall clinical results of SR remain excellent in properly selected patients with RAD,

Blood donation by the elderly ; clinical and policy considerations

Pindyck J, et al. J Am Med Asso 1987, 257 : 1186-8

At present, healthy potential blood donors older than the age of 66 years often leave the donor pool for reasons of age alone, despite the fact that this demographic group is growing, is a potentially willing source of blood products, and

constitutes the cohort with highest per capita use of blood and its derivatives. There is no clinical or physiological rationale for this. We performed a controlled study to measure the feasibility and safety of blood donation by healthy elderly donors aged 66 years and older, compared with younger cohort aged 55 to 65 years of age. A study group of prior donors aged 66 years and older and a control group of prior donors between the ages of 50 and 65 were sent letters inviting them to donate blood. The volume donated did not differ between the two groups. In the older group, there were eight immediate reactions, seven mild and one moderate. The control population experienced seven immediate reactions, six mild and one severe. We conclude that it is both clinically feasible and efficient to recruit healthy prior donors older than the age of 66 years for blood donation. As a group, this population is potentially able to donate large volumes of blood and do so without any difference in immediate or short-term reactions. Further study of hemodynamic variables as more objective markers of safety is needed.

Addition of sulfonylurea to insulin treatment in poorly controlled type II diabetes ; a double blind, randomized clinical trial

Schade DS, et al. J Am Med Asso 1987, 257 : 2441-5

This study examined the potential beneficial effects of the addition of a second-generation sulfonylurea to insulin therapy for poorly controlled type II diabetes. A rendomized, double-blind, crossover experimental design was utilized in 16 type II diabetic patients for a period of eight months. Treatment with glyburide, 20 mg/d (plus insulin), compared with placebo (plus insulin) resulted in a significant reduction in mean basal glucose (232±12 vs 262±11 mg/dL [12.8 vs 14.4 mmo/L]) and hemoglobin A_1c (10 2% ± 0.5% vs 10.9% ± 0 3%) concentrations. Concomitant with this change, basal C-peptide and free insulin values increased with glyburide therapy, but this pharmacological agent did not alter the ability of the potient's erythrocytes to bind insulin. We conclude that in type II diabetic subjects receiving more than 28 units of insulin per day, the addition of glyburide results in a marginal, but statistically significant improvement in basal glucose concentration, but not in glucose tolerance as assessed by integrated glucose concentration. Whether this small improvement in glycemia is worth the additional cost of sulfonylureas or the risk of drug side effects is not known.

Nutritional therapy for high blood pressure ; final report of a four-year randomized controlled trial—the hypertension control program

Stamler R, et al. J Am Med Asso 1987, 257 : 1484-91

A four-year trial assessed whether less severe hypertensives could discontinue antihypertensive drug therapy, using nutritional means to control blood pressure. Randomization was to three groups: group 1-discontinue drug therapy and reduce overweight, excess salt, and alcohol; group 2 discontinue drug therapy, with no nutritional program ; or group 3-continue drug therapy, with no nutritional program. In group 1 and 2 patients resumed drug therapy if pressure rose to hypertensive levels. Loss of at least 4.5 kg (10 lb) was main-

tained by 30% of group 1, with a group mean loss of 1.8 kg (4 lb) ; sodium intake fell 36% and modest alcohol intake reduction was reported. At four years, 39% in group 1 remained normotensive without drug therapy, compared with 5% in group 2. Study findings demonstrated that nutritional therapy may substitute for drugs in a sizable proportion of hypertensives or, if drugs are still needed can lessen some unwanted biochemical effects of drug treatment.

Strongyloidiasis in US veterans of the Vietnam and other wars.

Genta RM, et al. J Am Med Asso 1987 258 : 49-52

The prevalence of strongyloidiasis among American veterans of the Vietnam and other wars was evaluated by testing several groups of veterans for serum IgG antibodies against Strongyloides stercoralis antigens, using an enzyme-linked immunosorbent assay. Of 493 Vietnam veterans, eight (1.6%) were seropositive. Of 60 patients with abdominal symptoms and/or elevated eosinophilia (> 0.08 [> 8%]) admitted to the Cincinnati Veterans Administration Medical Center, 12 (5%) were seropositive. Of 147 residents of a Veterans Administration-operated nursing home, six (4%) were seropositive. All infected patients in the latter two groups were World War II veterans. The usefulness of the enzyme-linked immunosorbent assay as a screening tool for at-risk groups is suggested by the finding that S. stercoralis larvae were demonstrated in most seropositive patients when a sufficient number of fresh stools were examined.

Thyroid failure in the elderly ; microsomal antibodies as discriminant for therapy

Rosenthal MJ. et al. J Am Med Asso 1987, 258 : 209-13

Thyrotropin (thyroid-stimulating hormone [TSH]) levels were elevated above 4.0 mU/L (mU/ml) in serum samples from 13.2% of 258 healthy elderly subjects. To investigate the natural history of progressive thyroid failure, serial thyroid functions were measured for four years in 26 of these subjects with elevated TSH levels. In one third of these subjects, biochemical thyroid failure developed (thyroxine level <58 nmol/L [4.5 mg/dL]) within the course of the study. All subjects with initial TSH levels above 20 mU/L mU/mL), and 80% of those with high-titer thyroid antimicrosomal antibodies (regardless of initial TSH level), became overtly hypothyroid. Compared with subjects with high-titer antibody, those with antibody titer less than 1:1600 had lower TSH and higher thyroxine levels, and thyroid failure developed in none during the study. These results suggest that among older patients with isolated elevations of the TSH level, only those with markedly elevated TSH levels or higher-titer antimicrosomal antibodies should be prophylactically treated with levothyroxine sodium replacement.

Fatal Asthma

Banatar SR. N Engl J Med 1986, 314:423-8

Desptie advances in knowledge about the pathophysiology, pathobiology, and other aspects of asthma and its treatment, death rates from asthma are increasing. Better education of patients and doctors, regular objective assessment of airflow obstruction and its response to treatment, as

well as self-admission services for patients suffering from acute exacerbations that do not respond to home therapy, may narrow the gap between what is known about the assessment and effective treatment of asthma and the application of this knowledge to patient care.

Acqnired Defect in interleukin-2 production in patients with type 1 diabetes mellitus

Kaye WM, et al. N Engl J Med 1986, 315 : 920-4

Measured interleukin-2 production in 27 patients with type 1 diabetes. 20 patients with type II diabetes (6 required insulin), 5 monozygotic twin pairs discordant for type 1 diabetes, and 10 nondiabetic persons with islet-cell antibodies. Patients with type 1 diabetes have an acquired defect in interleukin-2 production, whereas patient with II diabetes do not, and that this defect is not correlated with an ongoing autoimmune process, with hyperglycemia, or with insulin administration or oral hypoglycemic therapy. The defect appears to be related to marked beta-cell destruction, although not to the metabolic consequences thereof or the responsible autoimmune process.

In search of the subcutaneous insulin resistance syndrome

Schade DS, et al. N Engl J Med 1986, 315 ; 147-53.

Used three approaches to attempt to identify patients with "subcutaneous-insulin resistance". First performed a series of studies of subcutaneous insulin absorption in 16 patients with a presumptive diagnoses of resistance to subcutaneous insulin. Second, assayed insulin degrading activity in subcutaneous biopsy specimens obtained from 25 patients throughout North America and Europe who had been diagnosed as resistant to subcutaneous insulin. Third, performed studies to tritiated insulin absorption in three additional diabetic patients and three control patients with nonbrittle diabetes. Data indicate that insulin resistance secondary to subcutaneous insulin degradation is extremely rare and frequently diagnosed. More rigorous criteria for the syndrome should to be used to prevent unnecessary invasive procedure in patients with brittle diabetes.

COLLEGE NEWS

WORKSHOP :

A Workshop for course and content evaluation and examination for FCPS Part I was held on 14.5.87. The following participants participated in the Workshop,

1. Dr. S A Ashraf
2. Dr. Mazhar Ali Quaderi
3. Dr. Golam Rasul
4. Dr. A H M Ahsanullah
5. Dr. Nazmun Nahar
6. Dr. S G M Chowdhury
7. Dr. Md. Nurul Amin
8. Brig. Abdul Malik
9. Dr. K M H S Sirajul Huq
10. Dr. Rashid-e-Mahbub
11. Dr. A K M Mahbubur Rahman
12. Dr. M A Hadi
13. Dr. A K M Anowarul Azim
14. Dr. K M Rahman
15. Dr. S I M G Mannan
16. Dr. A K M N Chowdhury
17. Dr. K A Khaleque
18. Dr. Syedur Rahman
19. Dr. Syed Ershad Ali
20. Dr. M R Khan
21. Dr. Abdul Bayes Bhuiyan
22. Dr. M R Choudhury
23. Dr. S N Samad Chowdhury
24. Dr. K M Iqbal
25. Brig. Anis Waiz
26. Maj. Gen. M R Chowdhury
27. Dr. Md. Nurul Islam
28. Dr. M A Rashid
29. Dr. M A Sharif
30. Dr. Muhammad Fazlul Huq
31. Dr. Latifa Shamsuddin
32. Dr. Mohammad Shamsul Huda
33. Dr. T A Chowdhury

The participants were divided in 3 groups under 3 Faculties of the college namely (1) Faculty of Medical Sciences (2) Faculty of Surgical Sciences and (3) Facu'ty of Obstetrics & Gynaecology. The participants of the Basic Sciences group were incorporated with 3 groups equally. In the Workshop following recommendations were taken.

1. Surgical Group:

Unanimous decision

(1) General Pattern for Examination in FCPS I namely 3 papers in Theory—Paper I, Paper II & Paper III and 3 separate Boards for Viva & Practical should remain as before. The contents of the Papers for each speciality namely General Surgery, Radiology, Radiotherapy, Anaesthesiology, ENT and Ophthalmology to be revised and Rewritten. (General Surgery to remain unchanged. Radiology, Radiotherapy & Anaesthesiology course contents have already been enunciated by the Examination Committee & accepted. ENT & Ophthalmology to be prepared.)

(2) Marking system—as follows—Pass grade is 15. Maximum that can be awarded is 17, there is no limit below. Previous terms of excellent or good or Marginal etc. to be dropped.

Theory and Practical in the same subject can compensate each other by averaging. But marks from one subject can not compensate for another subject. Finally if there is only one grade short in one compartment only the examination committee may declare him Pass. In case of fraction of a whole number the nearest whole number will be taken.

2. Medical Group:

By majority decision they indicated that FCPS Part I Examination should remain as it is for all specialities in Medical Faculty (it is to be noted that Psychiatrists wanted separate Syllabus and Examination in Psychiatry). Other resolutions as regards Grading system were the same as those of the Surgical Faculty.

3. Obstetrics & Gynaecology Group:

They did not feel any change was needed for their subjects.

Continuing Medical Education Programme :

April 30, 1987 - Dr. (Brig) Anis Waiz, Consultant Physician, DGMS, Dhaka Cantt. delivered a lecture on "Malaria—a 10 year's retrospective study".

June 25, 1987 - Dr. M. G. Muazzam Prof. of Pathology (Retd.) delivered a lecture on "Introduction of Post-mortem examination for the development of Medical Science".

Examination News :

Results of FCPS I, FCPS II and MCPS Examination held in July, 1987 are as follows

267 candidates appeared in FCPS Part I Examination in different subjects & only 25 candidates came out successful. Subject wise results are as follows :

Subject	Number appeared	Number passed
Medicine	54	6
Surgery	69	9
Obst. & Gynae	36	3
Paediatrics	46	4
Ophthalmology	18	0
E.N.T.D.	14	0
Psychiatry	8	2
Radiology	3	0
Radiotherapy	2	1
Anaesthesiology	12	0
Clinical Pathology	5	0
	267	25

68 Candidates appeared in FCPS II Examination in different subjects, List of candidates who satisfied the examiners are as follows :

Roll No.	Name	Name of Medical College from where graduated.	Subject
1	Dr. Md. Ismail Patwary	Chittagong Medical College	Medicine
2	Dr. Mohd. Syedur Rahman	Mymensingh Medical College	Medicine
3	Dr. Md. Abu Bakar	Sher-e-Bangla Medical College	Medicine
9	Dr. Mahboob Ali Quaderi	Dhaka Medical College	Medicine
12	Dr. Swapan Chandra Dhar	Sir Salimullah Medical College	Medicine
13	Dr. Faisal Ahmed	Sylhet Medical College	Medicine
14	Dr. Quazi Tarikul Islam	Rajshahi Medical College	Medicine

Roll No.	Name	Name of Medical College from where graduated	Subject
15	Dr. Abul Hussain Khan Chowdhury	Dhaka Medical College	Medicine
17	Dr. Dilip Kumar Dhar	Mymensingh Medical College	Medicine
20	Dr. A. P. M. Sohrabuzzaman	Chittagong Medical College	Medicine
21	Dr. Sufi Muhammad Suhail	Dhaka Medical College	Medicine
23	Dr. Md. Abdul Masud	Rajshahi Medical College	Medicine
25	Dr. Mohammed Abu Azhar	Mymensingh Medical College	Medicine
31	Dr. Md. Abdur Rahim	Rajshahi Medical College	Surgery
34	Dr. Md. Kamruzzaman Khan	Mymensingh Medical College	Surgery
37	Dr. Mohammad Saiful Islam	Dhaka Medical College	Surgery
41	Dr. Kali Prosad Sarker	Chittagong Medical College	Surgery
43	Dr. Bhampa Rai	Gouhati Medical College, Assam	Surgery
44	Dr. Md. Shahidul Alam Khan	Mymensingh Medical College	Surgery
46	Dr. Afiquor Rahman	Mymensingh Medical College	Surgery
48	Dr. Gulshan Ara	Rajshahi Medical College	Obst. & Gynae
49	Dr. Amal Kumar Roy	Mymensingh Medical College	Obst. & Gynae
50	Dr. Firoza Begum	Sir Salimullah Medical College	Obst. & Gynae
57	Dr. Afiqul Islam	Mymensingh Medical College	Paediatrics
58	Dr, Md. Ekhlasur Rahman	Dhaka Medical College	Paediatrics
59	Dr. S.M. Shahnawaz Bin Tabib	Sir Salimullah Medical College	Paediatrics
60	Dr. Abdur Rouf Chowdhury	Chittagong Medical College	Paediatrics
66	Dr. Gopi Kanta Roy	Sylhet Medical College	Psychiatry

60 candidates appeared in MCPS Examination in different subjects. List of candidates who satisfied the examiners are as follows :

Roll No.	Name	Subject
8	Dr. Md. Anwarul Hoque Chowdhury	Medicine
15	Dr. Muhammad Ahsan Kabir	Surgery
26	Dr. Khan Anwar Akter	Obst. & Gynae
27	Dr. Jamal Ara Begum	Obst. & Gynae
44	Dr. Sajed Ahammad Siddique	Paediatrics
43	Dr. A.K.M.Azizur Rahman	Paediatrics
47	Dr. Md. Abul Hassan	Paediatrics
52	Dr. Shamim Aziz	Psychiatry
55	Dr. Muhammad Dalilul Islam	ENT
56	Dr. A. H. Abedur Reza	Radiology