SURVEY OF MAJOR SURGICAL OPERATIONS IN HAZARA DIVISION

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Abstract: All the hospitals of Hazara Division with facilities for major surgical procedures were surveyed from 1981 to 1 986 and their work load was assessed.10205 cases collected in this survey were categorized. Male to female ratio was calculated to 3.5:1 and age group of 16-30 was predominantly represented (44%). Grude rate for work load was calculated which shows an increasing rise of four fold in six years (1981—1986).

Introduction

Word Epidemiology in Greek derivation, means study upon the people. The method in modern medicine is not only used as investigatory tool for the cause detection and follow up of the natural history of the disease but it encompasses wider prospective like assessment of treatments, evaluation of preventive programmes and planning of health services.

All the above mentioned objectives may only be achieved if records in standard forms are preserved at different centres which can be pooled together and analysed. Optimum management policies and health planning programmes can then be devised. This system of data collection and its analysis was recognised by the western community many decades ago which led them to define their areas of priorities in preventing disease and to organise the health system accordingly. It is unfortunate that inspite of available epidemiological procedures based on western experience we are still in infancy regarding proper data collection and its preservation. Hospitals and other national health medical treatment centres which deal with most of the patients are no exception. This has affected the priorities of our health programming.

A few of the basic problems in our view with hospital census in our country are indicated as below: —

1. Inability to devise detailed and proper procedure of data collection and its processing by the health service programmers.
2. Lack of specialized staffing to collect data in hospitals. Ordinary nursing and clerical staff who are already overworked are unable to cope with this aspect of record keeping. This obviously leads to take entries in the records at the end of the year when depart mental formalities are to be fulfilled.
3. Lack of preservation and pooling of the records. Major reason behind this in appropriation is the fact that except for medico-legal cases there is no place in the legislation to refer to the medical records of in-patients once discharged from the hospital.

Keeping in view the above observations we have tried to obtain, process and analyse critically the earnest data of major operative procedures for six consecutive years (1981 to 1986) from all the centres of Hazara Division where General Surgical theatres are operational for the indigenous, civilian population.

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Data prior to 1981 was considered to be less relevant as many of these centres were inadequately staffed and equipped to cater for the variety of operations to be carried out. Therefore, a large majority of indigenous population had to seek such facility in hospitals outside the region.

Material and Method

A proforma was designed for the collection of data from various hospitals. The operation records from 1981 to 1986 were thoroughly scrutinized and the nature of the operative procedures were recorded. All minor procedures recorded as major operations were not included in the study. Age and sex of the patients were noted wherever possible.

Results and Discussion

Highlights of this survey are given as below: —

There were four centres where major procedures were being carried out during the period of 1981—86 and these were:

1. Civil Teaching Hospital, Abbottabad.
2. District Headquarters Hospital, Mansehra.
3. Bach Christian Hospital, Qalandarabad, (B.C.H).
4. Combined Military Hospital, Abbottabad, (C.M.H.).

(Where from data for the major procedures carried out on non-entitled cases, which means indigenous civilian population, were obtained). Recently established private clinics shared very insignificant work load. Their details were not included in this survey because of lack of availability of the data.

10205 major operative procedures were carried out in the above mentioned centres during the specified period of 1981—86. Major share was claimed by the Civil (Teaching) Hospital, Abbottabad, where 8,342 cases were recorded. 1,013 cases were performed in DHQ Hospital, Mansehra, while 638 and 212 operations were carried out in BCH, Qalandarabad and CMB, Abbottabad respectively.

In 6,821 of 1,0205 cases age and sex of the patients could be established. 5,313 cases out of this were males while 1,508 were females giving male to female ratio 3:5:1. Male preponderance in our male dominant community is quite logical. It increases their vulnerability to trauma and some other diseases. Furthermore, attention to female problems is not always given as promptly as is to the male members.

Age group wise distribution of the patients is presented in Table-I

Table - I
AGE-WISE DISTRIBUTION OF 6,821 SUBJECTS

Age Group	No. of Cases	Percentage
0-15	1188	17.4
16-30	3027	44.38
31-45	1140	16.71
-46	1466	21.49

It was observed that the age group 16—30 was dominant (44.38%) in all groups. The observation is in contrast to a similar study in western community.[1]

Trend of the work load in various centres is shown in Table-2

Table – 2
WORK LOAD OF GENERAL SURGICAL OPERATIONS (1981-86)

Years	Teaching Hospital Abbottabad	DHQ Mansehra	Bach Christian Hospital Q. Abad	C.M.H Abbottabad
1981	660	—	—	54
1982	750	—	180	50
1983	1290	—	124	28
1984	1545	175	89	28
1985	1789	328	105	28
1986	2308	510	140	24
	8342	**1013**	**638**	**212**

It is quite evident that main brunt is born by the Civil (Teaching) Hospital, Abbottabad. This hospital was upgraded in 1981. Besides the renovation of the old building new blocks were constructed and bed strength was increased. New equipment's were installed and highly qualified clinical teaching staff was appointed. DHQ Hospital, Mansehra has also been facilitated with better staff, as a result the rise in its work load is noted. BCH, Qalandarabad is a Christian Missionary Institution which is dependent on volunteers for many of their staff. That is why it is showing waxing and waning trend of the work load. CMH, Abbottabad used to share work load to some extent but since the development of civilian institutions its services to the non-entitled civilian's population have been reduced to negligible numbers.

The details of the operations are given in Tables 3—6:

Table – 3
CATEGORIC REPRESENTATION OF THE MAJOR SURGICAL PROCEDURES PERFORMED IN VARIOUS HOSPITALS OF HAZARA DIVISION

Type of operation	Civil (Teaching) Hospital Abbottabad	DHQ Hospital Mansehra	Bach Christian Hospital Q. Abad	C M H Abbottabad	Total	Percentage
Appendectomies Laparotomies	1925	319	28	34	2306	22.60
i) for Acute abdominal conditions (Gastro Intestinal)	632	75	38	9	754	
ii) for chronic abdominal conditions (intestinal)	176	45	—	5	226	
Hepatobiliary	250	8	2	9	269	
Stomach	77	20	—	6	103	
Urinary Tract	1024	129	70	22	1245	12.2
Breast	114	4	—	3	121	1.19
Goiter	150	—	—	5	155	
Hernias Inguinal	955	55	139	21	1170	
Others	156	26	35	—	217	
Opns. on perinea] region (Piles/FIA/Scro: TUM)	554	54	70	2	680	
Veins	58	—	—	3	61	
Neurosurgical	102	4	—	—	106	1.04
Orthopedics	912	37	67	16	1032	10.11
Miscellaneous	1257	237	189	77	1760	
Total:	**8342**	**1013**	**638**	**212**	**10205**	

Table-4
YEARWISE MAJOR UROLOGICAL PROCEDURES PERFORMED IN CIVIL (TEACHING) HOSPITAL, ABBOTTABAD

Type of Operations	Year wise Data						Total No. of Cases
	1981	1982	1983	1984	1985	1986	
Total Nephrectomies	5	3	3	-	1	-	12
Operation for Calculus Disease	32	50	59	77	104	100	422
Prostatectomies	84	74	99	87	104	142	590
	121	127	161	164	209	242	1024

Table – 5
YEARWISE SPLIT OF VARIOUS MAJOR NEUROSURGICAL PROCEDURES PERFORMED IN CIVIL (TEACHING) HOSPITAL, ABBOTT ABAD

Type of operations	Years Wise Data						Total No of Cases
	1981	1982	1983	1984	1985	1986	
Meningoceles	11	12	8	5	10	9	55
Encephaloceles	-	1	-	5	3	3	12
Burrholes and Craniectomies and depressed ractures	-	2	8	3	9	7	29
VP Shunts	-	-	-	2	-	2	4
Laminectomies	-	-	1	-	-	1	2
Total No. of Cases	**11**	**15**	**17**	**15**	**22**	**22**	**102**

Table – 6
YEARWISE SPLIT OF MAJOR ORTHOPAEDIC OPERATIONS PERFORMED IN CIVIL (TEACHING) HOSPITAL, ABBOTTABAD

Type of Operations	Years Wise Data						Total No. of Cases
	1981	1982	1983	1984	1985	1986	
Trauma	16	5	54	128	90	188	481
Infections	8	8	21	45	14	31	127
Deformities	-	8	19	41	23	39	130
Miscellaneous	27	11	20	36	29	51	174
Total No. of Cases	**51**	**32**	**114**	**250**	**156**	**309**	**912**

It is to mention here that Orthopedics was included in this survey because in Civil (Teaching) Hospital, Abbottabad, Orthopedics procedures are carried out under the same ceiling as that of General Surgery while in other centres this specialty is dealt with by General Surgeons,

Crude rate of major operations per 1000 population per year was 2.6 for the year 1981 while it escalated to 9.95 for the year 1986 (Figure 1). This increase in work load does not necessarily mean the rise in morbidity, instead it refers to the increase in the availability of surgical facilities in the hospitals, easy access of the distant population to the main hospitals due to better means of transportation and health education leading to awareness of the public which in turn increases their willingness to subject themselves to anesthesia and operations. However, present work load is far below the actual dimensions of the demand (this fact is indicated by the trend of the work load shown in Table 2). It is expected to rise many folds when existing surgical facilities in the existing hospitals shall be increased in addition to opening of the new hospitals at appropriate sites in the region. It is a matter of concern that for a population of 2.7 million (1981 census)[2] there are only about one hundred and fifty surgical beds available in the whole of Hazara Division.

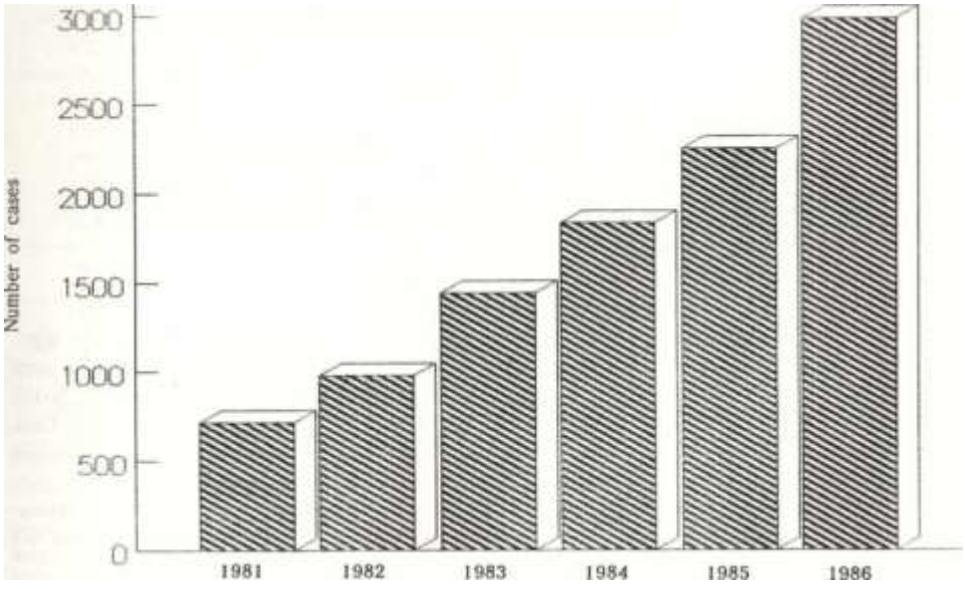

figure 1: year wise distribution of the major surgical procedures.

In conclusion material in this survey provides plenty of food for thoughts. It is suggested that, existing surgical services ought to be strengthened by providing more surgical units and staff. New surgical centres should be established and public health programmes need to be expanded in the region to help prevention of the surgical complications due to infection and communicable diseases, counter-act poor hygiene and malnutrition. Health education through personnel and media is vital and would make a perceptible difference in this regard.

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