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FACTORS, RISK, EPIDEMOLOGY AND PATTERN OF SURGICAL PATIENTS IN THE HOSPITALS OF LAHORE

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Abstract:

Objective: *- Our study aimed to outline the surgical ailments in the cases admitted in a Surgical Unit of "Gangaram Hospital, Lahore".*

Design: *- Demonstrative description of analysis of surgical cases admitted from January 2017 to June 2017.*

Setting: - *Unit four of Surgical Ward in Gangaram Hospital, Lahore.*

Results: *- Five Hundred and one males and female's cases, 284 (56.7%) and 217 (43.3%) respectively; were admitted in 180 days' time span in Unit four of Surgical Ward in Gangaram Hospital, Lahore. Through OPD, patients out of these, total 296 (59.1%) were admitted; whereas 190 (37.9%) referred from emergency and only 15(3%) from other units. Gastrointestinal related diseases followed by Hernia was found in majority of patients 114 (22.8%), Hernia 94 (18.8%), while 69 (13.8%) Hepato-biliary disease, 37 (7.4%) Ano-rectal disease, 35 (7%) Abscesses, 28 (5.6%) Trauma, 20 (4%) Thyroid disease, 19 (3.7%) problems related Testicular & Scrotal, 17 (03.4%) diseases of breast and 10 (2%) patients of Tetanus. Study revealed "Diabetes Mellitus" as the general associated disease in 60 (12%) patients. After successful treatment a total number of 441 (88%) cases were discharged on the other hand 10 (02.2%) failed to survive during the period of study.*

Conclusions: *- Through our research we found gastrointestinal related problems including acute abdomen as very common cause of admission; the same followed by "Hepato-Biliary" syndrome and hernias, also the very common linked disease observed was 'diabetes mellitus'.*

Key Words: *Associated Disease, Disease Pattern, Surgical Diseases.*

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INTRODUCTION:

Gangaram Hospital, Lahore has the capacity of 1670 beds, imparts teaching and training both to the postgraduates and undergraduates. Surgical department consists of six units of general surgery additionally with the Neurosurgical specialties. It also has independently functioning units like Pediatric, Orthopedic, Urology, Vascular, Maxillo-Facial and Plastic surgeries [1].

Unit four surgical ward consists of forty-five beds. Professor, an Associate Professor, two Assistant Professors, 3 RMO's; and a number of house officers and postgraduates come in the hierarchy of this unit. Similar to other general surgical units; it manages an OPD/week and besides every sixth Sunday having an emergency this unit also observe emergency duties on the day of OPD [2]. Patients not only from Lahore but the patients from the rural areas of interior 'Punjab and adjoining areas also use to visit this hospital for their treatment. Current research focused on finding out the pattern of surgical diseases among the admitted patients.

SAMPLE AND METHODS:

An expositional analysis; of all admitted cases; of unit four, of surgical ward at Gangaram Hospital, Lahore from January 2017 to June 2017.; to document the data we designed a Performa and recorded information include type of admission, cure, prevalence of associated diseases, demographic facts, provisional and final diagnosis and final outcome. SPSS version-10 on computer was utilized for the data analysis.

RESULTS:

Five hundred and one individuals got their admission in 'Surgical Unit IV', CHK in six months' study period. Males and females; out of these were 284 (56.7%) and 217 (43.3%) respectively. Through OPD 296 (59.1%) individuals were admitted; while from emergency came 190 (37.9%) patients and 15 (03%) admitted from different units. Out of mentioned 501 cases; 441 (88%) patients were discharged after their successful treatment, for further treatment 39 (7.8%) referred to other units, while against medical advice 11 (2.2%) left the unit and unfortunately 10 (2%) expired.

Gastrointestinal related diseases followed by hernial disease observed in maximum number of patients i.e. 114 (22.8%) and 94 (18.8%) respectively, 69 (13.8%) with hepato-biliary diseases, 37 (7.4%) with ano-rectal problems, 35 (7%) with abscesses, 28 (5.6%) with trauma, 20 (4%) with thyroid diseases, 19 (3.7%) with scrotal related and testicular problems, 17 (03.4%) with diseases of breast and 10 (2%) having tetanus.

Table I: Age Distribution

Age Number	Number	Percentage
12 to 20	82	16.4
21 to 30	147	29.3
31 to 40	117	23.4
41 to 50	75	15
51 to 60	51	10.2
61 to 70	22	4.4
> 70	7	1.4
Total	501	100

Table II: Disease Pattern

Disease	Number	Percentage
Gastrointestinal related	114	22.8
Hernia	94	18.8
Hepato-biliary region	69	13.8
Ano-rectal region	37	7.4
Abscess	35	7
Trauma	28	5.6
Thyroid related	20	4
Testicular & scrotal	19	3.7
Breast related	17	3.4
Tetanus	10	2
Miscellaneous	58	11.5
TOTAL	501	100

Table III: Incidence of major diseases

Disease		Number	Percentage
Gastrointestinal Diseases	Appendicitis	68	13.6
	Intestinal Obstruction	17	3.4
	Perforated duodenal ulcer	9	1.8
	Carcinoma Colon	2	0.4
	Reversal of Ileostomy	4	0.8
	Typhoid Perforation	3	0.6
	Gastric Outlet Obstruction	2	0.4
	Peritonitis	8	1.6
	ITP	1	0.2
Hernias	Inguinal, Obstructed Hernia	66	13.2
	Epigastric Hernia	6	1.2
	Paraumbilical Hernia	14	2.8
	Incisional Hernia	5	1
	Umbilical Hernia	2	0.4
	Hiatus Hernia	1	0.2
Hepato-biliary diseases	Acute Cholecystitis	3	0.6
	Chronic Cholecystitis	51	10.2
	Cholangiocarcinoma	1	0.2
	Obstructive Jaundice	7	1.4
	Pancreatitis	7	1.4
Breast diseases	Fibroadenoma	4	0.8
	Carcinoma Breast	5	1
	Breast Abscess	6	1.2
	Duct Ectasia	2	0.4
Thyroid diseases	Multinodular Goiter	12	2.4
	Cold Nodule thyroid	7	1.4
	Carcinoma Thyroid	1	0.2

Table IV: Incidence of trauma

Trauma Incidence	Number	Percentage
Stab wound	9	1.8
Gun Shot wound	9	1.8
Road Traffic Accident (RTA)	5	1
Blunt Abdominal Trauma	2	0.4
Blunt Chest Trauma	3	0.6
Total	28	5.6

Table V: Co-Morbidity

Associated Disease	Number	Percentage
Diabetes	60	12
Hypertension	54	10.8
Anemia	40	7.9
Hepatitis	29	5.8
Tuberculosis	18	3.6
Asthma/COPD	11	2.2
Miscellaneous	22	4.4

DISCUSSION:

Geological areas, diverse races, age groups, communal classes and people with dissimilar professions are the factors which cause variation of the pattern of diseases. Genetic as well as environmental aspects are also accountable for the outline variation of diseases in patients belonging to dissimilar regions [3]. Among patients admitted in tertiary care hospitals; we hardly find local studies available on the topic. Till the time only two studies have discussed it in detail; the outline of syndrome in medical wards and single from a surgical ward, whereas one from a surgical unit; has declared it as an overview [4]. Our study; in relation to the study from another surgical unit-III bear many differences. In our study we have included 501 admitted cases during six months, as compared to the admissions lasting for one-year period of report which include 563 patients as per the report by Shaikh et al, Pediatric surgical and Urological cases were also included by him [5]. It reveals to us that Gangaram Hospital, Lahore, carry the main burden of the city's patients who need surgery, patients referred from different hospitals through emergency are also included. The major source of patient admission in current study was Gastrointestinal related diseases (22.8%); while hernias (16%) reported by Shaikh et al be the most common root [6]. From Nawab Shah; Manzar S, account genitor-urinary problems (09%) as the commonest and (22%) declared gastrointestinal

diseases by him as the second commonest cause. Appendix 13.6% (n=68) in our study; was the most common disease related to Gastrointestinal (GI tract), whereas just 22 (03.9%) cases were reflected in other study during a year [7]. Busted appendices incidences were 06% (n=4) in this research; despite the fact that contents of the books describe that 20% of all cases with severe appendicitis to have rip at the time of appearance. A further primary surgical emergency of Intestinal obstruction 17 (3.4%) was observed in patients. External abdominal hernias; of all the Inguinal Hernias account for 90%. In our study, total number of hernias were 94 i.e. 18.8%; 66 i.e. 70.2% were inguinal whereas Sheikh R-et-al represented hernia cases as (15.9%), inguinal of them being (85.5%) [8]. On the other hand, Manzar S reported; with 84% inguinal hernia, an overall hernia incidence of 9%. The 'Hepato-Biliary' cases; single patient (1.8%) with cholangio-carcinoma; came across on routine histopathology. The frequencies vary with the ecological area and national racial groups; otherwise this may be a rare disease here. Among the people of 'Chilea, American-Indians and in parts of Northern India;' highest incidences were reported of biliary tract disease where it accounts for as much as (9.1%) [9]. The majority of common root of deaths in full-grown women in West, as per report, is Carcinoma Breast. Roughly 'about one million' fresh incidences were spotted in all over the world, during 1998. As per the reports of studies in 'Wales and England,' one each out of twelve women, is expected to develop this syndrome. From Pakistan, as per description of Jaffrey-et-al the breast cancer is also exist as the general cancer amongst the feminine of Lahore. We had (1%) patients of breast cancer in this research, where we have 501 patients [10]. By having a glance on the presence of associated diseases; cases with diabetes were 60 (12%), hypertensive 54 (10.8%); whilst anemia 40 (7.9%) was present in patients [11].

In the first four decades of life; wound and shock lead the roots of disability or death and still in 'Acquired Immune Deficiency Syndrome' (AIDS) rampant regions of the globe, this holds true. American "National Academy of Sciences" has stickered wounds like the ignored ailment of contemporary society and a most important emergency department surgeon has submitted trauma as the mistreated step-child of recent medicine. With history of trauma in this research; 28 (05.6%) cases got admitted, 18 (03.6%) cases of knife and gunfire wounds were included in it [12].

Diabetics' mellitus (12%) was the mainly average allied syndrome in our patients and (10.8%) cases were of hypertension. According to various studies, the prevalence of diabetes varies from 5% – 15%. Shera et al conducted a population-based survey and illustrated the occurrence of diabetics in both men and women as (16.2%) and (11.7%) respectively [13]. By using WHO criteria; a learning performed in the city of Bahawalpur proved generally diabetes prevalence to be 11 (5.33%). As per National Health Survey of 1998 in Pakistan; about twelve million hypertensive patients are there. Inhabitants of our country, higher than the age of fifteen years about (18%) and over the age of forty-five years (33%) endure hypertension [14]. Jabeen et al. as well stated that due to complication of hypertension diabetes as well as strokes are the main predicament of humanity. As a view of generating understanding as well as control of diabetes and hypertension in our people, we still need to do a lot more.

CONCLUSION:

Through our research we found gastrointestinal related problems; including acute abdomen as very common cause of admission; the same followed by "Hepato-biliary" syndrome and hernias; diabetics' mellitus also observed as a familiar linked syndrome, whilst wound and shock is the primary root of disability or death. There must be a more detailed study concerning the outline of syndrome admitted to tertiary healthcare services in Pakistan, subsequently suitable interference planned, diagnosed and implemented.

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