

Study Profile of Symptomatology in General Surgery OPD at Tertiary Care Hospital in Industrial Belt of Western Maharashtra.

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Abstract

Background: The 21st century is driven by industrial revolution and migration of working class from different geographical belt of India to the areas with crowding of new opportunities for livelihood. These packs of people when migrated from one geographical location to the other, does carries with them their social, cultural, eating habits and so does the disease pattern. There is a very less data addressing the needs of these people in terms of health care so as to help in planning specific health strategies. The aim of the study is to identify common symptoms patients present with to the surgical OPD, common clinical diagnosis associated with these

symptoms and common investigations required for the management of these patients

Material and Methods: Present study was single-center, prospective cross-sectional study, conducted in department of general Surgery of a tertiary care hospital in Pimpri Chinchwad City in Pune District.

Results: Out of 210 patients, 96(45.7%) were females while 114(54.3%) participants were males. Mean age of female participants was 37.56 years with a SD of 15.95 years. 119 (56.7%) of the patients had Permanent local municipal corporation resident and while only 91(43.3%) of the patients had come from other places near to municipal corporation. Abdominal pain was the main presenting symptom with 119 (56.7%), 69(32.9%)

were having co-morbidities, 41(19.5%) patients had hypertension and 36(17.15) had Diabetes mellitus.

Conclusion: Profiles of patients seeking treatment from a hospital will be useful in order to provide quality and timely services to patients which will ultimately result in reduced rate of complications and better outcome.

Keywords: Symptomatology, General Surgery OPD

Introduction

The 21st century is driven by industrial revolution and migration of working class from different geographical belt of India to the areas with crowding of new opportunities for livelihood. These packs of people when migrated from one geographical location to the other, does carries with them their social, cultural, eating habits and so does the disease pattern. There is a very less data addressing the needs of these people in terms of health care so as to help in planning specific health strategies. In this study we are trying to address this gap in the knowledge by studying their disease presentation pattern, hence the inclusion subjects for this study are the working patients from outside the state of Maharashtra.

Disease specific study helps to crater needs of the masses especially at the government run set up. The study of distribution of various symptoms helps to estimate specific disease burden. To organize the setup, send relevant investigation, preparation of operation theater, and to procure specific instruments and drugs.(Vegas et al., 1993) Study of demographic characteristics like education, socioeconomic status and distribution over the geographical region helps to correlate disease awareness among the locals and their attitude toward health care.(Lundgren et al., 1993a)

The objective of the healthcare system is to provide best possible health care and service to the patient. (Jawaid et

al., n.d.) In order to utilize the available resources efficiently, it is necessary to study the profile of the patients' availing services from the healthcare institution.(Oates et al., 1994) With the help of advanced knowledge about the profile of patients availing services will be helpful for healthcare managers to prepare for the type of patients that are expected to visit, and proper arrangements can be made priori and the surgeries can be planned accordingly.(Sukhlecha et al., 2015)

This will help the health care system to be prepared and make necessary arrangements and for management of patients. This will result in a better patient outcome and decreased complications and post-surgical infection rate.(Pawar &Malgaonkar, n.d.)

The audit is defined as the systemic and critical analysis of the quality of medical care that includes the use of resources, procedures used for diagnosis and treatment, and the patient outcome.(Sukhlecha et al., 2015) The patient related complications and events during the hospital stay are crucial in order to manage the patient.(Lundgren et al., 1993a)

Aims and Objectives

The aim of the study is to identify common symptoms patients present with to the surgical OPD, common clinical diagnosis associated with these symptoms and common investigations required for the management of these patients.

The study helps to highlight effects of education occupation and economic status of the patients over health issues in a gated community of industrial belt of western Maharashtra.

Material and Methods

Present study was single-center, prospective Cross-sectional study, conducted in department of general Surgery, at PCMC's Postgraduate Institute and

Yashwantrao Chavan Memorial Hospital, Pimpri, Pune, Maharashtra India. Patients visiting to OPD of General Surgery Department from 1st January, 2022 to 15th January 2022 were studied. Study approval was obtained from institutional ethical committee.

Study Population: All patients of more than 18 years of age of either sex will be included in the present study.

Inclusion criteria

- All patients visiting to the surgery OPD of the hospital with an age of 18 and above.
- Patients giving informed consent.

Sample Size: 210

Data regarding age, sex (male, female), area of living (urban, rural), chief complains of patients at the time of admission

Data was collected and compiled using Microsoft Excel, analyzed using Statistical software IBM SPSS Statistics 23.0 version. Frequency, percentage, means and standard deviations (SD) was calculated for the continuous variables, while ratios and proportions were calculated for the categorical variables.

Results

In present study 210 patients satisfying study criteria were considered.

Table 1: Demographic profile of patients

Particular	No. of patients	Percentage
Age-group	0-20	20 9.5%
	21-40	119 56.7%
	41-60	51 24.3%
	61-80	19 9.0%
	>80	01 0.5%
	Mean ± SD	37.56±15.95 years
Gender	Male	114 54.3%
	Female	96 45.7%
Permanent resident	Yes	119 56.7%
	No	91 43.3%
Occupation of patients	Private Servant	98 46.7%
	Government Servant	24 11.4%
	Business	48 22.8%
	Homemaker	23 10.9%
	Unemployed	17 8.1%

Out of 210 patients, 96(45.7%) were females while 114(54.3%) participants were males. Mean age of female participants was 37.56 years with a SD of 15.95 years. 119 (56.7%) of the patients had Permanent local municipal corporation resident and while only 91(43.3%) of the patients had come from other places near to municipal corporation. 98(46.7%) patients were private servant, 24(11.4%) patients were Government servant, 48(22.8%) patients were having business, 17 (8.1%) of the female patients were homemakers while 17 (8.1%) of the male patients were unemployed.

Table 2: Chief Complain of patients

Chief Complain	No. of patients	Percentage
Pain in abdomen	119	56.7%
Pain elsewhere	37	17.6%
Trauma	22	10.5%
Head Injury	14	6.7%
bleeding /pain while defecation	31	14.8%
Dyspepsia	07	3.3%
Swelling	56	26.7%

Abdominal pain was the main presenting symptom with 119 (56.7%), while swelling reported in 56(26.7%) of the patients, followed by 37(17.6%) of patients presenting with Pain elsewhere than abdomen, 31(14.8%) of patients were having bleeding /pain while defecation and 22 (10.5%) presenting with trauma.

Table 3: Co-morbidities in patients

Particular	No. of patients	Percentage
Co-morbidities	Present	69 32.9
	Absent	141 67.1
Co-morbidities	Hypertension	41 19.5%
	Diabetes Mellitus	36 17.1%

	IHD	03	1.42%
	Asthma	04	1.9%
	Chronic Kidney Disease	03	1.42%
	Hypothyroidism	03	1.42%
	Other	05	2.4%

In present 69(32.9%) were having co-morbidities and 141(67.1%) were not having co-morbidities. Maximum 41(19.5%) patients were having hypertension followed by 36(17.15) of Diabetic Mellitus. 03(1.42%) of patients reported IHD Chronic Kidney Disease and hypothyroidism.

Table 4: Clinical Diagnosis of patients

Clinical Diagnosis	No. of patients	Percentage
Renal Calculi	26	12.38
Hemorrhoids	25	11.9
RTA	21	10
Hernia	20	9.5
Appendicitis	16	7.6
Cellulitis	15	7.1
Trauma	14	6.66
Cyst	12	5.7
Fissure In Ano	11	5.2
Lipoma	8	3.8
Lump in breast	8	3.8
Cholelithiasis	6	2.8
Pancreatitis	6	2.85
Thyroid swelling	6	2.85
Jaundice	5	2.38
Breast Abscess	4	1.9
Perianal Abscess	4	1.9
Perforation	3	1.42
Total	210	100%

Table 4 indicates distribution of study subjects according to the clinical diagnosis of patients included in the study. Out of 210 patients included in the study, 26 (12.38%) patients were diagnosed with the renal calculi, followed

by hemorrhoids (n=25, 11.9%), RTA (n=21, 10%), Hernia (n=20, 9.5%), Appendicitis (n=16, 7.6%), Cellulitis (n=15, 7.1%), Trauma (n=14, 6.66%), Cyst (n=12, 5.7%), Fissure (n=11, 5.2%), Lump in breast (n=8, 3.8%), Lipoma (n=8, 3.8%), thyroid swelling (n=6, 2.85%), Pancreatitis (n=6, 2.85%), Jaundice (n=5, 2.38%), Perianal abscess (n=4, 1.9%), breast abscess (n=4, 1.9%) and perforation (n=3, 1.42%)

Table 5: Treatment seeking behavior

	No. of patients	Percentage	
	Taking OTD	88	41.9%
	Using warm water/hot oil message for pain relief	64	30.5%
	settle on its own	11	5.23%
	Was busy in daily work, did not got free time	92	43.8%
Presented symptoms in past also?	Yes	155	73.8%
	No	55	26.2%
Duration of symptoms (n=155)	<1 Month	89	57.4%
	1-6 Months	43	27.7%
	>6 Months	23	14.8%
Intervention done in past for similar complaints?	OTD	53	34.2%
	Shown to GP/local doctor	64	41.3%
	Used local home remedies	32	20.6%
	resolved on its own	13	8.4%

Table 5 indicates distribution of study subjects according to the treatment seeking behavior. Majority of the patients take OTD (n=88, 41.9%), use warm water or hot oil massage to relieve themselves from pain (n=64,

30.5%), and let the pain settle on its own (n=11, 5.23%). Few patients reported that they did not get enough time to take treatment due to busy schedule (n=92, 43.8%). Majority of the patients included in the study had presented with the symptoms in the past also (n=155, 73.8%). Majority of the subjects reported that they had pain for last six months (n=132, 62.86%). And in the past, they took OTD (n=53, 34.2%), consulted with the general physician (n=64, 41.3%), used local home-based remedies (n=32, 20.6%), and let the disease resolve on its own (n=13, 8.4%).

Discussion

Clinical audit is done in order to safeguarding the quality of patient care. It is based on the quality and completeness of data collected retrospectively from the medical records.(Kable et al., 2004) The task of maintaining quality and completeness of patient record is a tedious job. (Lundgren et al., 1993b)

Lundgren A et al, conducted a study in Sweden and found that the incidence of complications was higher when fructose- glucose, antibiotics or anticoagulants were given but it was not mentioned in the patient record.(McHugh &Thoms, 2002) The study helps management to highlight common surgical diseases prevalent in the commons and helps to plan strategy to improve outcomes in terms of health management of the masses in the given region. As it is a limited cross-sectional study, it warrants further retrospective study to pin point health needs of the target population under study.

Demographic information: The demographic distribution of patients included in this study indicates that, majority (56.7%) were in the age group 21-40 years old followed by 24.3% in the age group 41-60 years and around 91% of the patients were from neighboring areas

of the city. Around half of the (56.7%) patients were permanent residents of the city and nearly equal proportion of patients were male and female. Majority of the patients availing services of surgical department were working in the private sector. The authors Shankar R et al and Jawaid M et al also found similar demographic structure of patients in their studies conducted in Nepal and Pakistan respectively.(Jawaid et al., n.d.; Sukhlecha et al., 2015)

Presenting complaints: The most of the patients had chief complaint of pain in abdomen, followed by the pain in other parts, trauma, bleeding or pain while defecation and head injury. Similar results were reported in a study conducted by Pawar et al and Kable A et al.(Kable et al., 2004; Pawar &Malgaonkar, n.d.)

Pawar et al reported abdominal pain as the most frequent chief complaint followed by burning epigastric pain and hypochondriac pain. (Pawar &Malgaonkar, n.d.)

Co-morbidities: The current study reported that around 32.9% patients visiting surgery department had other co-morbidities along with the complaint for current visit. The most common co-morbidities were hypertension, diabetes, Ischemic heart disease, Asthma, CKD, and hypothyroidism. Similar results were reported in a study by Kable et al.(Kable et al., 2004)

Clinical Diagnosis: In the current study, it is observed that majority of the patients were diagnosed with the renal calculi, followed by hemorrhoids, RTA, Hernia, Appendicitis, Cellulitis, Trauma, Cyst, Fissure, Lump in breast, Lipoma, thyroid swelling, Pancreatitis, Jaundice, Perianal abscess, breast abscess and perforation. Similar diagnosis were reported in a study conducted in Nepal(Sukhlecha et al., 2015) and Pakistan.(Jawaid et al., n.d.)

Treatment seeking behavior: Majority of the patients take OTD, use warm water or hot oil massage to relieve themselves from pain, and let the pain settle on its own. Few patients reported that they did not get enough time to take treatment due to busy schedule. Majority of the patients included in the study had presented with the symptoms in the past also. Majority of the subjects reported that they had pain for last six months. And in the past, they took OTD, consulted with the general physician, used local home-based remedies, and let the disease resolve on its own. Similar behavior was reported by Sitaram K et al in a study conducted among individuals who find themselves with a health-related problem. (Khadka et al., 2022) (McHugh & Thoms, 2002)

Conclusion

Profiles of patients seeking treatment from a hospital will be useful in order to provide quality and timely services to patients which will ultimately result in reduced rate of complications and better outcome. Studying patients' profile and keeping it updated record from time to time will help the hospital authorities to provide the services to the full capacity and efficiency. The patients' complications can be prevented to a great extent by providing timely diagnosis and proper treatment. The co-morbidities like Hypertension and Diabetes and other lifestyle diseases are observed commonly among the surgical patients.

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