

A Prospective Study of Common Surgical Problems in Geriatric Patient with Special Reference to Gastrointestinal Tract Diseases in Vindhya Region

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Abstract

Background: Aging is a continuous process which begins with conception and ends with death. It is said that nobody grows old merely by living a certain number of years, while aging merely stands for growing. The health problems to be considered should include – physical, mental, emotional, and socioeconomical. Old age is not a disease but the aged people are often vulnerable to long-term diseases such as cardiovascular, cerebrovascular, respiratory, gastrointestinal, cancers, mental derangement, hearing and visual loss, and conditions affecting the locomotor system. Aim of this study is to analyze the common surgical problems in geriatric patient with special reference to gastrointestinal tract (GIT) diseases in Vindhya region.

Materials and Methods: A total of 1585 cases were studied with common surgical geriatrics problems admitted in the surgical wards in Sanjay Gandhi Memorial Hospital associated with Shyam Shah Medical College, Rewa (MP), India, in the period from 1 June 2018 to 31 May 2019. The proposed study includes patients with age 60 years and above who will be admitted through surgical outpatient department, casualty and/or will be transferred from other departments. After admission of patients, particular will be recorded and they will be also inquired for chief complaints with duration, history, drug history, personal history, and family history. Their findings will be recorded in a pro forma.

Results: Of 10,887 patients admitted in Sanjay Gandhi Memorial Hospital associated with Shyam Shah Medical College, Rewa (MP), India, during the period of 1 June 2018–31 May 2019, in which common surgical problems were diagnosed in 1585 patients (14.55%), among which most of the patients were males (1137) and rest were females (448). Most of the patients belonged to 60–64 years of age group. From this study, intestinal obstruction among GIT diseases was found to be the most common surgical problem.

Conclusion: Majority of elderly patients admitted with GIT disorders were having intestinal obstruction (22.17%), followed by PUD (21.47%), peritonitis (17.09%), malignant lesions and hemorrhoids (9.23%), and colitis (6.92%). Of sex-wise total admission. The incidence of intestinal obstruction (26.11% vs. 20.40%) and colitis (14.92% vs. 3.34%) was more common in female than male. Whereas PUD (23.41% vs. 17.16%) and perforation peritonitis (19.06% vs. 12.68%), hemorrhoids were more common in male than female.

Keywords: Diseases, Geriatric, Patient

INTRODUCTION

Aging is a continuous process which begins with conception and ends with death. No one knows when old

age begins “The biological age” of a person is not identical with his “chronological age.” The health problems to be considered should include – physical, mental, emotional, and socioeconomical. Old age is not a disease but the aged people are often vulnerable to long-term diseases such as cardiovascular, cerebrovascular, respiratory, gastrointestinal, cancers, mental derangement, hearing and visual loss, and conditions affecting the locomotor system. These diseases produce disabilities. However, these disabilities can be minimized by early detection and proper treatment.

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Today surgery is being frequently performed in the elderly not only to the life-threatening emergency but also as an elective procedure to treat symptomatic states, which trends to disturb an otherwise peaceful retired life of the individual. Discoveries in medical science and improved socioeconomic conditions during the past few decades have increased the life span of people. In India, approximately two-thirds of the elderly live in the rural areas and more than half of the population is on the margin of poverty and poor health.

The effects of aging include poor wound healing manifesting as wound dehiscence and anastomotic leaks of bowel, delayed callus formation, disordered coagulation, and reduced enzyme synthesis decreased oxidative metabolism of drugs by the liver and immunological depression with increased susceptibility to infection. Decreased tolerance to radiotherapy and cytotoxic chemotherapy, all with the severe mental apathy and physical exhaustion of the elderly.

The prime aim of the surgeon is to prolong useful and good quality of life after surgery.

Aim and Objectives

This was a prospective study of common surgical problems in geriatric patient with special reference to gastrointestinal tract (GIT) diseases in Vindhya region.

MATERIALS AND METHODS

Number of Patients

1585.

Inclusion Criteria

Patient of age 60 years and above in both sexes was included in the study.

Exclusion Criteria

The following criteria were excluded from the study:

1. Patient left hospital during course of treatment
2. Patient operated outside the institute
3. Patient below age 60 years.

The proposed study includes patients with age 60 years and above who will be admitted through surgical outpatient department (OPD), casualty and/or will be transferred from other departments.

After admission of patients, particular will be recorded and they will be also inquired for chief complaints with duration, history, drug history, personal history, and family history. Their findings will be recorded in a pro forma.

Patients will then thoroughly examined with details of general, systemic, and local examination and a provisional

diagnosis will be made on clinical grounds of the underlying surgical problems and associated systemic disorders with medical problems such as hypertension, diabetes mellitus, nephropathy, and mental illnesses. Patients admitted in emergency will be resuscitated and subjected to relevant investigations for primary pathology and associated systematic disorders. Routine investigations will be carried out in every patient and specialized investigation as an when required.

Patients will be treated accordingly either conservatively or by surgical intervention which will be done according to indication. After assessment of patients, they will be subjected to various surgical procedures if required and full details of anesthesia and operative procedures will be recorded.

Patients who underwent various surgical procedures will be discharged postoperatively patients will receive treatment as per plan and complications will be recorded. Patients who will be treated conservatively will be discharged on relieve of their symptoms and with regression after removal of their stitches and will be followed up in surgical outpatients department.

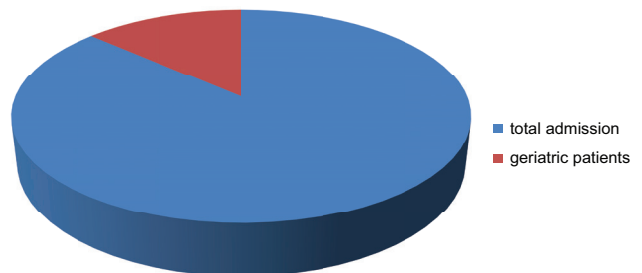
OBSERVATIONS AND RESULTS

In the present study, the incidence of geriatric surgical problems in total admission was found to be 14.55% [Table 1].

As evident from Table 2, the majority of patients were male (70.71%) with male:female ratio of 2.4:1. Majority of patients were in age group 60–64 years (29.90%). Number of patients in age group 80 years and above was also significant (14.51%). The eldest patient was a 100-year-old male.

Table 1: Incidence of surgical problems in geriatric patients

Total admission	Geriatric patients admitted	Incidence
10887	1585	14.55%



It is evident from Table 3 that the majority of elderly patients admitted with GIT disorders were having intestinal obstruction, followed by peptic ulcer disease (PUD) (21.47%), peritonitis (17.09%), malignant lesions and hemorrhoids each (9.23%), and colitis (6.92%).

Of sex-wise total admission, the incidence of intestinal obstruction (26.11% vs. 20.40%) and colitis (14.92% vs. 3.34%) was more common in female than male.

DISCUSSION

In the present study, geriatric patients having surgical problems were 14.55% of total admissions. In a similar study by Sandeep *et al.* (2010),^[1] total geriatric patients admitted were 15.39% of total admissions in surgical ward. It is evident that geriatric patients with surgical problems were a major group that requires special care and it is increasing in number with time due to increase longevity of life.

Age Distribution

The present study shows the maximum number of patients (29.90%) were present in 60–64 years of age group followed by 22.20% in 65–69 years of age group and 22.20% in 70–74 years of age group. High incidence of the patient in 60–64 years of age group may be due to the higher number of geriatric population in this age group.

In a similar study by Kumar and Khan (2012)^[2] on 380 geriatrics patients, majority of patients were from the 60–70 years age group (82.00% [$n=200$] among the males and 82.22% among the females).

In a similar study by Pasari (1990),^[3] majority of patients (45%) were having surgical problems from age group 60–64 years, admitted in surgical ward.

Sex Distribution

In the present series, number of males exceeded females with proportion of 2.4:1. The higher number of male patients was due to the higher number of cases of benign prostatic hyperplasia, PUD, hernia, and skin and soft tissue infection in male than female. A higher number of male patients due to lifestyle factor of male or it may be males are more health-conscious as compared to females and this awareness toward health brought them to the hospital or it may be due to financial dependency of female or it may be [Table 4].

Distribution According to System Involvement

The present study shows that majority of surgical patients was involved gastrointestinal system (27.31%), next common being genitourinary system (25.17%), skin and

soft tissue lesions (21.51%), and hepatobiliary system (12.87%). A study by Sandeep *et al.*^[1] (2009) shows 31.07% geriatric patients suffering from GIT disorder.

Gastrointestinal System

The most common lesion in GIT disordered patients was intestinal obstruction (22.17%), next common PUD (21.47%), perforation peritonitis/peritonitis (17.09%) and malignant lesions, and hemorrhoids (9.23%) each. It is evident that >50% of GIT disorder burden due to intestinal obstruction, PUD, and perforation peritonitis/peritonitis. The cause behind high incidence

Table 2: Distribution of patients according to age and sex

S. No.	Age group (in years)	Total		Male		Female	
		No.	%	No.	%	No.	%
1.	60–64	474	29.90	319	28.05	155	34.59
2.	65–69	352	22.20	251	22.07	101	22.54
3.	70–74	352	22.20	260	22.86	92	20.53
4.	75–79	177	11.16	130	11.43	47	10.49
5.	80 and above	230	14.51	177	15.56	53	11.83
Total		1585	100	1137	100	448	100

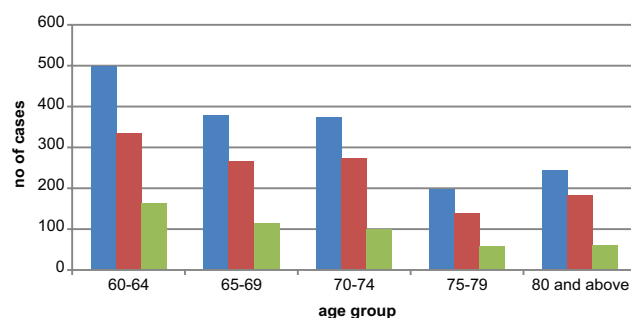


Table 3: Distribution of patients according to gastrointestinal system involvement (n=433)

S. No.	Type of lesion	Total		Male		Female	
		No.	%	No.	%	No.	%
1.	Intestinal obstruction	96	22.17	61	20.40	35	26.11
2.	Peptic ulcer disease	93	21.47	70	23.41	23	17.16
3.	Perforation peritonitis/ peritonitis	74	17.09	57	19.06	17	12.68
4.	Malignant lesions	40	9.23	35	11.70	5	3.73
5.	Hemorrhoids	40	9.23	30	10.03	10	7.46
6.	Colitis	30	6.92	10	3.34	20	14.92
7.	Acute appendicitis/ appendicular lump	30	6.92	22	7.35	8	5.97
8.	Ileostomy/colostomy	6	1.38	3	1.00	3	2.23
9.	Pancreatitis	6	1.38	2	0.66	4	2.98
10.	Prolapse rectum	10	2.30	3	1.00	7	5.22
11.	Fistula in ano	5	1.15	4	1.33	1	0.74
12.	Gastric outlet obstruction	2	0.46	1	0.33	1	0.74
13.	Splenic abscess	1	0.23	1	0.33	00	00
Total		433	100	299	100	134	100

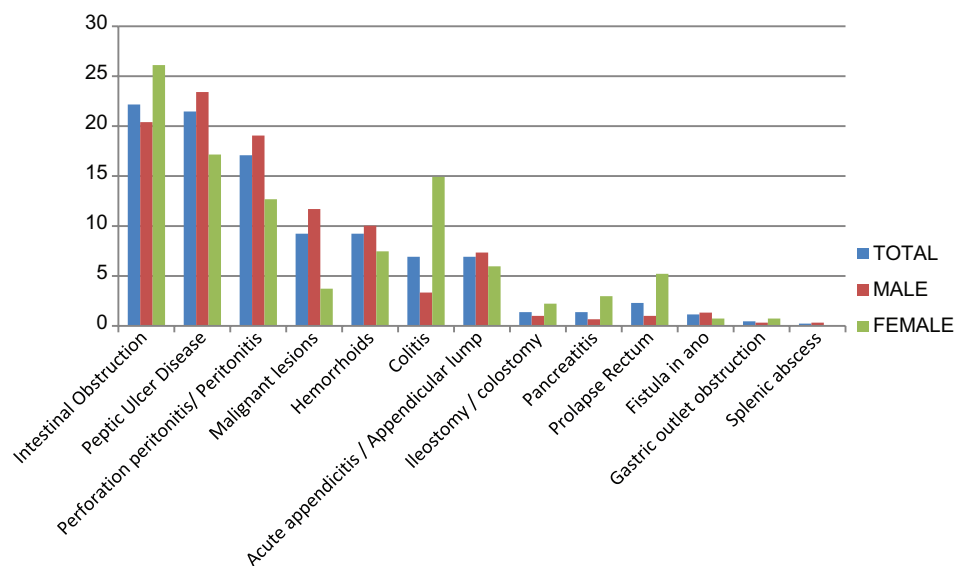


Table 4: Comparative study of sex-wise distribution of geriatric patients

S. No.	Workers	Year	Male	Female	Total
1.	Cogbill	1967	522	3	525
2.	Gurjar	2000	146	54	200
3.	Sabnis Sandeep	2010	765	252	1017
4.	Ahirwar Sandeep	2014	1224	516	1740
5.	Present series	2019	1137	448	1585

of gastrointestinal disorder in geriatrics may be due to reductions in esophageal peristalsis and lower esophageal sphincter pressures are also more common in the aged and may cause gastroesophageal reflux, delayed small bowel motility, and gastric emptying also common elderly subjects. Aging affects all function of the gastrointestinal system, motility, enzyme and hormone secretion, and digestion and absorption.

A study by Dumeric *et al.*^[4] shows that incidence and mortality from PUD are in elderly remains very high.

CONCLUSION

The present study “study of common surgical problems in geriatric patients” was carried out in 1585 patients with age group of 60 years and above, who were admitted in surgical wards of Sanjay Gandhi Memorial Hospital and associated Shyam Shah Medical College, Rewa (MP), during from 1 June 2018 to 31 May 2019. Patients were admitted through surgical OPD, casualty and/or were transferred from other departments. Detailed history was recorded, thorough clinical examination done, provisional diagnosis was made, and relevant investigations were carried out.

Patients were treated according to merits of their diagnosis either conservatively or by surgical intervention which was done according to indication. After stabilization of condition of patients, they were subjected to various surgical procedures and full details of anesthesia and operative procedures were recorded.

Postoperatively patients received treatment as per plan and complications were recorded. Patients treated conservatively were discharged on relive of their symptoms and with regression of their signs. Patients who underwent various surgical procedures were discharged after removal of their stitches and were followed up in surgical OPD.

All the observations made, were critically analyzed and following conclusions were drawn:

1. The incidence of geriatric patients with surgical problems was 14.55% of total admission in the year from 1 June 2018 to 31 May 2019
2. Majority of patients were male (71.73%) with male:female ratio of 2.4:1. Majority of patients were in the age group 60–64 years (29.90%)
3. Majority of elderly patients admitted with GIT disorders were having intestinal obstruction (22.17%), followed by PUD (21.47%), peritonitis (17.09%), malignant lesions and hemorrhoids (9.23%), and colitis (6.92%). Of sex-wise total admission. The incidence of intestinal obstruction (26.11% vs. 20.40%) and colitis (14.92% vs. 3.34%) was more common in female than male. Whereas PUD (23.41% vs. 17.16%) and perforation peritonitis (19.06% vs. 12.68%), hemorrhoids were more common in male than female.

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ETHICAL APPROVAL

The study was approved by the Institutional Ethics Committee.

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