

An Analytical Study on Surgical Emergencies in a Rural Medical College

Santhosh Kumar Shanti¹, Srinivas Rao^{2*}

¹Associate Professor, Department of Surgery, Santiniketan Medical College, Bolpur, West Bengal, India.

²Associate Professor, Department of Surgery, LNCT Medical College, Indore, Madhya Pradesh, India.

ABSTRACT

Background: Surgical emergencies are very commonly seen in surgical practice. Some of the common disorders like acute appendicitis, peritonitis, Intestinal obstruction, stab injuries & trauma, Acute cholecystic, mesenteric vein thrombosis and Burns are included. Most of the emergency conditions presents with pain_abdomen, and distention of abdomen, most of the conditions are fatal if not treated in time. Usually occurs in adult age group and old age group. Males are more commonly affected.

Aim of the study: To know the prevalence, clinical features and outcome of surgical emergencies in our area.

Materials and Methods: We have included 160 patients in this study. Out of these 160; males are 117 and females are 43. The age group included is between 20 years and 60 years. This study is conducted from 2020 February to 2021 May for 1 year 3 months in the department of general surgery in LNCT Medical College Indore. Informed consent has been obtained from the close relations of the patients.

Results: We have examined 160 cases. Out of these 160 cases males are 117 and females are 43. The age group involved is between 20 yrs and 60 yrs. The common age group is between 30 and 40 yrs. And total no.of patients expired are 27. Males 19 and females 8. The maximum number of emergencies are due to Acute appendicitis and Peritonitis.

Conclusion: Surgical emergencies are very common in India. Males are commonly involved than females. The mortality is very high in rural part of area. Because of delay in the transporting of patients and non-availability of medical facilities the Mortality is high. Early diagnosis and early intervention give good prognosis.

Keywords: Pain Abdomen, Intestinal Obstruction, Appendicitis, Peritonitis, Perforation.


*Correspondence to:

Dr. Srinivas Rao,
Associate Professor,
Department of Surgery,
LNCT Medical College,
Indore, Madhya Pradesh, India.

Article History:

Received: 11-06-2021, Revised: 05-07-2021, Accepted: 29-07-2021

Access this article online

Website: www.ijmrp.com	Quick Response code 
DOI: 10.21276/ijmrp.2021.7.4.016	

INTRODUCTION

Surgical emergencies in Abdomen includes Acute appendicitis, peritonitis, intestinal obstruction, mesenteric vein thrombosis, GI Bleeding, Renal colic, stab injuries. These disorders commonly occur in India and worldwide, but etiology is varying. The common symptoms include pain abdomen and distention of abdomen. Other symptoms depend on particular disorder. Assumption about physiologic status and primary treatment goals that are reasonable in younger patients.

The clinical features of appendicitis include pain abdomen which radiates to Right Iliac fossa, fever, vomiting, guarding, rigidity, whereas in peritonitis, pain abdomen, distention of abdomen, constipation, vomiting, tiredness, fever and sometimes associated with electrolyte imbalance. The symptom in intestinal obstruction includes pain abdomen vomiting, distention, increased bowl sounds.¹

In Renal colic the pain starts in lion region which is very severe

and associated with Burning micturition and sometimes Hematuria. Stab injuries usually occurs in younger patients when compared to older ones and in males only. Rarely in females. Vascular emergencies which include mesenteric ischemia, rupture of abdominal aorta and dissection of aorta are common in older patients and with highest Mortality. Gastrointestinal bleeding which includes upper GI and lower GI Bleeding, is due to mainly cirrhosis of liver, carcinoma stomach. The preventable emergencies condition is strangulated hernia and other conditions are acute pancreatitis, sigmoid volvulus certain malignancies and obstruction in the urinary tract.^{2,3}

Acute pancreatitis can be managed sometimes medically also. Rupture of spleen and lacerated injury to liver occurs due to abdominal injuries and most of these disorders can be diagnosed by X-ray abdomen (erect posture), ultrasound abdomen, CT scan abdomen and vascular lesions by mesenteric angiogram.

MATERIALS AND METHODS

We have included 160 patients. out of these 160 males were 117 and females were 43. The age group involved is between 30 years and 70 years. Males are commonly involved more than 70%. The common age group is around 5th decade. This study has been conducted from February 2020 to May 2021 for 1year 3months in LNCT medical college, in the department of general surgery. Informed consent has been obtained from the attendants.

After taking careful history and clinical examination. Blood samples were collected and send for investigation which includes complete Blood picture, Blood grouping, Rh typing Blood sugar, LFT, Blood urea, serum creatinine, serum electrolytes, x-ray abdomen, ultrasound abdomen, and CT Scan abdomen. After collection of data, compelled and computerizes systemically analyzed by MS office.

Table 1: Different age groups males (117)

S. No.	Age Group	No. of Pts.	Percentage
1	30-39 Yrs	25	21.36%
2	40-49 Yrs	37	31.62%
3	50-59 Yrs	33	28.20%
4	60-70 Yrs	22	18.80%

Table 2: Different age groups females (43)

S. No.	Age Group	No. of Pts.	Percentage
1	30-39 Yrs	9	20.93%
2	40-49 Yrs	13	30.23%
3	50-59 Yrs	16	37.20%
4	60-70 Yrs	5	11.62%

Table 3: Different Causes

S. No.	Causes	Males (Total 117)	Females (Total 43)
1	Acute appendicitis	49 (41.8%)	13 (30.25%)
2	Peritonitis	30 (25.65%)	11 (25.8%)
3	Intestinal obstruction	23 (19.75%)	9 (20.9%)
4	Trauma	9 (9.8%)	5 (11.6%)
5	Others	6 (5.12%)	5 (11.6%)

Table 4: Different Complications

S. No.	Complications	Males (Total 117)	Females (Total 43)
1	Wound dehiscence	(6.8%)	(41.6%)
2	Pelvic abscess	(5.9%)	(6.9%)
3	Shock	(8.3%)	(9.2%)
4	Infections	(16.2%)	(12.32%)
5	Others	(3.6%)	(4.2%)

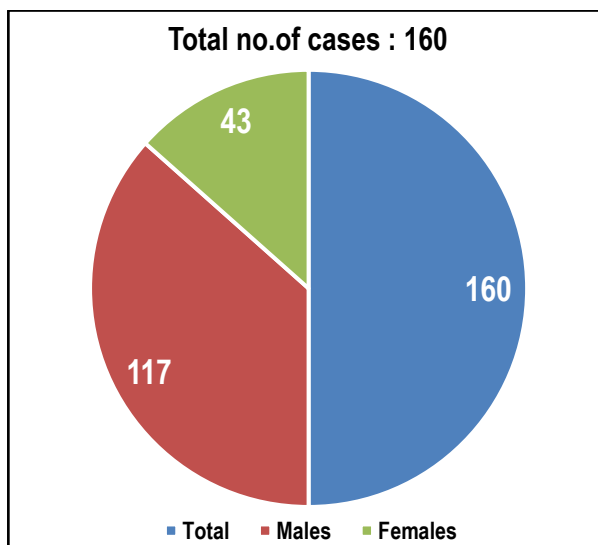


Fig 1: Total Cases

RESULTS AND DISCUSSION

In our study males more are affected than females. The common age group in between 4 and 5 decades. The study conducted by Mohan et al shows that the common age group is 6th decade.⁴ The common causes for acute abdominal emergencies in our study are Acute appendicitis 49.no (41.8%) in males and in females 13.no.(30.2%); peritonitis in males 30.no.(25.6%) and in females; Intestinal obstruction in males 23 in no. (19.6%) whereas in females 9 in no. (19.5%); due to trauma in males are 9 in no. (6.12%), in females 5 (11.6%) and other causes. The results from the studies of R. Shivakumar shows appendicitis 36.2%; peritonitis 21.9%.⁵

Among the complications Infections, wound dehiscence, pelvic abscess, shock and other were noted in our study wound infection was noted in 16.2% males and in females 12.32% wound dehiscence was noted in 6.8% in males and in females it is 11.6% pelvic abscess was noted in 5.9% of males ad 6.9% of females. In

one study Conducted by Mohammad TA observed wound infection 8.5% and wound dehiscence 4.2% and pelvic abscess 3.21%.⁶

Mortality is 16.2% in males 17.9% in females. The causes for mortality are delayed hospitality and delayed diagnosis and pts were having other co-morbid conditions, 5 patients are having coronary artery disease, 3 were having uncontrolled diabetes mellitus and 3 patients were having chronic kidney disease.

In some studies, the common causes are little different, pancreatitis and Bleeding from upper Gastrointestinal were observed. But this disease can be managed medically also, only in the conditions where Surgical Management was needed those conditions only considered in our study. In our study 0.5% patients who were presented with acute pain abdomen were diagnosed as Dengue Fever.

Abdominal Surgical emergencies are very common in India and worldwide also. The etiology varies from one country to another country. In our study the common causes are appendicitis, pancreatitis, Intestinal obstruction, but in some studies shows Gastrointestinal bleeding. Cholelithiasis etc.⁷

Intestinal obstruction occurred in 19.3% patients in males 18.1% in females, males are more commonly affected than females. In some cases, adhesion was found, mainly in old age group, all most all patients were given the history of Repeated surgeries. In majority of patients 67.9% small bowl was involved intestinal obstruction is one of the surgical emergencies especially in elderly patients. The studies conducted by Kim et al shows nearly similar result.⁸ In our study intestinal obstruction due to adhesion are common.

After resuscitation all the patients were treated according to standard protocol. According to the patient's condition and etiology appropriate specific antibiotics, proton pump inhibitors and other co-morbid conditions like hypertension, diabetes, and respiratory problems were treated, additional postoperative Management like Blood transfusion Inotropic support, secondary suturing were done.⁸

Surgical procedures were done with mean duration of 85 mins with range of 45 mins to 180 mins surgery for duodenal ulcer perforation repair was 15 mins and for intestinal obstruction was 65 mins. The study conducted by Daniel et al shows nearly 10 mins and 56 mins respectively.⁹

The postoperative complications in our study observed are wound infection, wound dehiscence, Respiratory complications are 16.8%; 6.8; 5.4% respectively. The studies conducted by G. Costa, G Nigri et al shows 8.7%; 3.2%; 4.7% respectively.¹⁰ The Mortality rate in our study was 12.6% in males and 13.9% in females.

CONCLUSION

Abdominal Surgical emergencies are very commonly occurring, frequently encountered causes are perforation of peptic ulcer, peritonitis, Appendicitis and intestinal obstruction. Early diagnosis and early surgical intervention give good prognosis. Delayed transportation and delayed diagnosis lead to increased mortality.

REFERENCES

1. Hardy A, Buttler K, Evaluation of the acute abdomen. Todd SR (EDS). Springer, Newyork, 2013; XVII, 88527.
2. Benko A etal. Suval Bowel Obstruction. Role of Ultrasonography. Eur, Radiol, 1997; (7) 7; 1054-8.
3. Short practice of Surgery by Bailey and Love. 22nd edi-; 1997; 42cha: pp-667-71.
4. Mohan A, Harikrishna J, Sharma K, presentation and outcome of acute abdomen is a tertiary case unit. Ann park Inst Med.Sci, 2011;7;137-44.
5. Shivakumar. R. et al Clinical profile of acute abdomen cases at a tertiary care hospital. Int.surg.J.2016;3.105-7.
6. Mohammed TA, Waquer SH; Zahid MA Presentation and outcome of acute abdomen in a tertiary care unit. Ann park. Inst.Med.Sci.2011;7:137-44.
7. Lee JF, Lensck, Appendicitis in the elderly, Aust NZJ seng.2000;70;593-596.
8. Kim JP, Kim SJ etal, Surgery in elderly patients in korea. Arch.Sung 1998;133;18-23.
9. Danieal J, Karey. Principles and Practice of Geriatric Surgery. J. Am. Med. Asso. 2012;307 (18);1981.
10. G costa, G Nigri, GM Varno etal Abdominal Emergencies Surgery in the Geriatric Patients outcome Experience. BMC; Griator, 2009, A53, 151-155.

Source of Support: Nil. **Conflict of Interest:** None Declared.

Copyright: © the author(s) and publisher. IJMRP is an official publication of Ibn Sina Academy of Medieval Medicine & Sciences, registered in 2001 under Indian Trusts Act, 1882.

This is an open access article distributed under the terms of the Creative Commons Attribution Non-commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Cite this article as: Santhosh Kumar Shanti, Srinivas Rao. An Analytical Study on Surgical Emergencies in a Rural Medical College. Int J Med Res Prof. 2021 July; 7(4): 74-76. DOI:10.21276/ijmrp.2021.7.4.016