



A Study of 150 Cases of Acute Abdomen Admitted in JLNMCB, Bhagalpur

Dr. Hari Shankar Prasad

Senior resident, Department of surgery, Jawaharlal Nehru Medical College, Bhagalpur, Bihar

Dr. Kumar Ratnesh

Assistant professor, Department of surgery, Jawaharlal Nehru Medical College, Bhagalpur, Bihar

ABSTRACT

In this study, 150 cases of acute abdomen were taken. Study was done in surgery department of JLNMCB, Bhagalpur, Bihar from January 2015 to January 2016. All cases of acute abdomen were registered fulfilled the inclusion criteria. This study was done to see the incidence of non-traumatic, acute abdominal emergencies in our college. The disease was most common in the age group 20-40 years with male predominance. More than half of the acute abdomen was due to the acute appendicitis. Neutrophil leucocyte count had the highest sensitivity (91%) while Plain X-ray abdomen showed the highest specificity (90%) and positive predictive value (84%) in diagnosing acute abdomen. Urinalysis showed the highest negative predictive value (88%). Overall diagnostic accuracy was 80%, which was statistically significant ($P < 0.05$). Diagnostic accuracy was highest in bowel obstruction (92%) and lowest in peritonitis due to viscus perforation (69%).

KEYWORDS : Acute abdomen, laparotomy, Neutrophil leucocyte, non-traumatic

Introduction-

The term "acute abdomen" is an important cause of surgical emergencies, which may require urgent surgical intervention. Many medical and gynaecological diseases also manifest as acute abdomen and to differentiate them at times is quite difficult. The term acute abdomen designates symptoms and signs of intra abdominal diseases usually treated best by surgical operation. Many diseases, some of which do not require surgical treatment, produce abdominal pain, so the evaluation of patients with abdominal pain must be methodical and careful. The proper management of patients with acute abdominal pain requires a timely decision about the need for surgical operation. This decision requires evaluation of the patient's history and physical findings, laboratory data, and imaging tests. The syndrome of acute abdominal pain generates a large number of hospital visits and may affect the very young, the very old, either sex, and all socioeconomic groups. Pre-operative diagnosis of acute abdomen with limited facilities is very crucial to minimize the morbidity and mortality in the developing countries like ours, where the facilities of diagnosis are limited and clinical acumen play a pivotal role in the diagnosis and management of acute abdomen. Thus, surgeons in developing countries need to improve diagnostic acumen and decision-making in the management of the acute abdomen. If surgery carried no risk and did not adversely affect the course of some diseases, it would be safe to say "if in doubt, operate." Unfortunately, laparotomy itself carries risks and the course of some disorders such as acute pancreatitis and paralytic ileus is adversely influenced by anesthesia.

Materials and methods-

In this study 150 patients of acute abdomen were included who were admitted in JLNMCB, Bhagalpur, Bihar from a time period of September 2015 to September 2016. There were not any significant differences in term of age, sex, previous surgery, etc. All patients met the inclusion and exclusion criteria before enrolling to the study. Pre-operative detailed history and thorough physical examination was done for all acute abdominal emergencies, to arrive at preoperative diagnosis. After admission routine investigations namely hemoglobin (Hb%), total count (TC), differential count (DC), urine examination were carried out. Relevant procedure like plain X-ray abdomen was taken in some cases.

Results

An analytical study of 150 cases of acute abdomen, from September 2015 to September 2016 had been carried out. Only those patients had been included in the study who suffered with features suggestive of acute abdominal emergency and who had been willing to provide informed consent to be part of this analytical study. Patients were subjected to history taking; clinical examination and the associated important parameters, such as mode of management, nature of sur-

gical procedure, outcomes, complications, duration of hospital stay etc had been taken from their in-hospital medical record. Out of 150 patients who underwent emergency laparotomy with the provisional diagnosis of acute abdomen 66% were male and 35% female. 60% cases were of acute appendicitis, 25% cases were of intestinal perforation, 10% due to intestinal obstruction. Rest cases were acute cholecystitis, Renal colic. Maximum number of patients were in the age group of 25-35 years of age. Leucocyte count was raised in 90% of the cases of acute abdomen.

Discussion

Accurate diagnosis of acute abdomen is still difficult despite improvement in clinical examinations and investigative procedures. Acute surgical emergencies constitute 50% of all general surgical admissions and 50% of them are for acute abdomen, 50% of which require surgical intervention. If the diagnosis is in doubt it is advised to operate for exploration rather than wait and see. But this policy will definitely raise the unnecessary laparotomy rate and the morbidity. Acute abdomen is a commonest emergency in surgical practice. Majority of the patients are male and in the age group of 20-40 years. Etiology of most of the cases is perforation peritonitis followed by acute appendicitis and acute cholecystitis. All cases should be thoroughly investigated by history taking and investigations like plain x-ray abdomen and hematological investigations. No case should be managed conservatively without excluding the cause for surgical interventions it may lead to gross negligence and morbidity and even mortality of the patient.

Conclusion

Acute abdomen was nearly twice as common in males as in females and the age group with the highest incidence was 25- 35 years. Acute abdomen should be treated as a surgical emergency unless proved otherwise. No case should be neglected until fully investigated for the emergency surgical intervention to avoid the complications and mortality.

References

- Gauderer MW. Acute abdomen— when to operate immediately and when to observe. *Semin Pediatr Surg.* (1997; 6(2): 74-80)
- Scott HS, Rosin RD. The influence of diagnostic and therapeutic laparoscopy on patients presenting with acute abdomen. *J. R. Soc Med* (1993; 86 (12): 699-701)
- Baigrie RJ, Saidan Z, Scott – coombes D et al. Role of Fine catheter peritoneal cytology and laparoscopy in the treatment of acute abdominal pain: *Br J Surg* 1991; (78(2): 167-70)
- Tadvrel P, Baron MP, Pradel J et al. Acute abdomen of unknown origin: impact of CT on diagnosis and management. *Gastrointestinal Radiol* (1992; 17(4): 287-91)
- Datubo – Burwn DD, Adotey JM. Pattern of Surgical acute abdomen in the University of Port Hartcourt Teaching Hospital. *West Afr J Med* (1990; 9 (2): 59-62)

6. Dr A.K. Sharma, Dr K. P. Rijal, Dr S. K. Pahari et al. Acute abdomen in Bir Hospital. *Journal of Nepal Med Association* (1987; 25(1). 53-64)
7. Datubo-Brown DD, Adotey JM. Pattern of surgical acute abdomen in the University of Port Harcourt Teaching Hospital. *West Afr J Med.*, (1990; 9: 5962)
8. Medford-Davis L, et al. Diagnostic errors related to acute abdominal pain in the emergency department. *Emerg Med J.*, 2015 Nov 3. pii: emermed-2015204754. doi: 10.1136/emered-2015204754. (Epub ahead of print) 5. Frei P. Differential diagnosis of abdominal pain. *Praxis*, (2015; 104: 95965)
9. Telling, W. H. M., and Gruner, O. C., *British Journal of Surgery*, (1917, 4, 468)
10. McWhorter, G. L., *Archives of Surgery*, (1932, 25, 958)
11. Howard, J. M., and Ravdin, I. S., *American Practitioner*, (1948, 2, 385)
12. Paterson-Brown S. Strategies for reducing inappropriate laparotomy rate in the acute abdomen. *BMJ* (1991; 303(6810): 1115-8)
13. Boleslawski-E, Panis Y, Benois S et al. Plain abdominal radiography as a routine procedure for acute abdominal pain of the lower quadrant: prospective evaluation. *World J Surg* (1999; 23(3): 262-264)
14. John PF. Practicalities in the management of the acute abdomen. *Br J Surg*, (1990; 77(4): 364-7)