

Role of x ray in patients with acute abdomen

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Abstract

Background: Investigations like X RAY and USG plays an important role in the diagnosis of disease

Material and methods: This study was conducted on patient presented with acute abdomen. Scout X-ray done in 250 patients. Scout X –Ray film gives lots of information and very helpful in diagnosing perforation and intestinal obstruction.

Results: X-Ray was 100% diagnostic in cases of perforation peritonitis. Intestinal obstruction was diagnosed in 95.55% cases.

Conclusion: This study shows that simple X-Ray plays an important role in definite diagnosis of acute abdomen.

Keywords: Acute Abdomen, Ultrasound, X- Ray

Introduction

One of the most common indications for emergency abdominal surgery is acute appendicitis. Morbidity and mortality from appendicitis is low when it is diagnosed in its early stages and treatment is initiated promptly. However, once perforation occurs, morbidity and mortality rates increase dramatically. Therefore, accurate and early diagnosis is essential. The diagnosis of acute

appendicitis is usually based on clinical findings and extensive investigations are unnecessary. However, imaging studies can be helpful in those cases where there may be doubt about the diagnosis due to atypical or unclear clinical presentation. With such presentations, appendicitis may only be one diagnosis among a list of many other differentials which would need to be considered; and there may even be doubt as to whether a surgical problem actually exists. It is within such scenarios that the use of radiological modalities is indicated for evaluation of the patient^{1,2}.

Various imaging studies including abdominal x-ray, ultrasound (US) and Computed Tomography (CT) scan may be performed in the investigation of a patient with possible appendicitis. Although many studies have discussed adjunctive testing in patients with suspected appendicitis, the diagnostic value of some of these tests remains uncertain.

Material and methods

All the patients with acute abdomen were included in the study. All the patient with acute abdomen come in Department of Radiodiagnosis with acute abdomen

formed part of study. Patients with abdominal trauma, obstructed hernia and malignancy were excluded from the study. Patients were subjected to routine hematological, urine examination and biochemical

estimations. Patients were subjected to scout Xray abdomen in standing position.

Results

Table 1: Role of Scout X RAY In Acute Abdomen.

Sn.	Disease group	No. of x-ray	x-ray positive	Percentage
1	Perforation Peritonitis	50	50	100
2	Intestinal obstruction	45	43	95.55
3	Appendicitis	25	0	0
4	Appendicular lump	25	25	100
5	APD	40	0	0
6	COLITIS	20	16	80
7	Pancreatitis	5	0	0
8	Renal stone	20	12	60
9	Twisted ovarian cyst	6	0	0
10	Abscess	10	5	50
11	Total	246	151	61.38

X-Ray was 100% diagnostic in cases of perforation peritonitis. Intestinal obstruction was diagnosed in 95.55% cases.

Discussion

The acute abdomen remains a challenge to surgeons and other Physicians. Abdominal pain is most common cause for hospital admissions in most parts of the world. An early diagnosis of the underlying cause is of great value for prompt selection of appropriate management, surgical or conservative, thereby reducing the morbidity and mortality on one hand and unnecessary laparotomy on other.

Studies are available that have compare the role of USG and abdominal X-RAY in acute abdomen ^{3,4} Walsh et al⁴, while evaluating the role of immediate USG in acute abdomen showed that USG was more informative than

plain X-Ray in 40% of their cases. Simeone et al shown that while plain films scored over USG in 5% cases only. Overall plain film of abdomen was abnormal in 151 patients out of 246 X-Ray films carried out in 250 patients of acute abdomen.

Conclusion

Acute abdomen is the most common presentation in emergency surgical cases. Definite diagnosis is very important. For correct diagnosis X-Ray plays an important role.

References

1. Das S: Examination of an acute abdomen. A manual of clinical surgery Ch 2000;33:335-356.
2. White M J and Counselman F.L.: Troubleshooting acute abdominal pain- Part 1 and 2. Emergency Medicine: Jan 2002.

3. Simeone JF et al: Comparison of plain film and sonography in valuation of acute abdomen. *AJR* 1985;144:49- 52.
4. Walsh PF, Crawford D, Crossling F T, Sutherland GR, Negrette JJ, Shand J: The value of immediate ultrasound in acute abdominal conditions. A critical appraisal. *Clin. Radiol* 1990;42:47-49.