

ROLE OF USG IN PATIENTS WITH ACUTE ABDOMEN

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Abstract

Background: The main goal of imaging in acute abdomen is to narrow down the differential diagnosis and for prompt treatment.

Material and methods: This study was done on patient presented with acute abdomen in Department of Radiodiagnosis, SMS Medical College & Associate Group of Hospitals, Jaipur. Scout X-ray done in 100 patients. Scout X-Ray film gives lots of information and very helpful in diagnosing perforation and intestinal obstruction.

Results: USG was able to diagnose 94% cases of perforation peritonitis. intestinal obstruction was diagnosed only in 73.17% of cases with USG.

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

Keywords: Ultrasound, X- Ray, Acute Abdomen

Introduction

The term acute abdomen defines a clinical syndrome characterized by abdominal pain of sudden onset developed over a period several hours requiring surgical or medical treatment¹. Acute abdomen comprises 5-10 % of people presenting as a general surgical emergency². An early and accurate diagnosis is essential for prompt and appropriate management in order to limit morbidity and mortality. Moreover identification of surgical problems is utmost importance, as most patients of acute abdomen do not require surgery. A thorough history followed by meticulous clinical examination is no doubt cornerstone of efficient patient management. However diagnosis based on clinical evaluation alone has been accurate in only 65% of cases³. And is often associated with delay in diagnosis and treatment and unnecessary laparotomies are done due to considerable overlap of symptoms and signs of various disease entities causing acute abdomen⁴.

The purpose of laboratory tests and radiological examination is to confirm and/ or exclude diagnostic possibilities

that are being considered based on a proper history and physical examination. The main goal of imaging in acute abdomen is to narrow down the differential diagnosis and for prompt treatment.

Material and Methods

The present study was conducted in the Department of Radiodiagnosis, SMS Medical College & Associate Group of Hospitals, Jaipur. 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 haematological, urine examination and biochemical estimations.

Results

Table 1: Role of USG in Acute Abdomen

s.no.	Disease group	No. of X-ray	USG positive	Percentage
1	Perforation Peritonitis	50	47	94.00
2	Intestinal obstruction	41	30	73.17
3	Appendicitis	20	0	0
4	Appendicular lump	20	12	60.00
5	APD	20	0	0
6	Colitis	18	0	0
7	Pancreatitis	5	3	60
8	Renal stone	20	20	100
9	Twisted ovarian cyst	4	4	100
10	Abscess	10	9	90
11	Total	208	125	60.10

USG was able to diagnose 94% cases of perforation peritonitis. Intestinal obstruction was diagnosed only in 73.17% of cases with USG.

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 ^{5,6}. Walsh et al⁶, 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 125 patients out of 208 USG carried out in 208 patients of acute abdomen.

Conclusion

This study shows that simple X-Ray plays an important role in definite diagnosis of acute abdomen as compare to USG.

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