



The Study of Ultrasound Findings in Acute Diarrhoeal Conditions in Kurnool Government General Hospital

KEYWORDS

diarrhoea, ultrasound

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ABSTRACT

Acute diarrhoeal illness is one of the most common cause of out patient visit in tropical countries like ours. Presentation of associated symptoms of diarrhea vary from simple loose stools to varied symptoms like pain abdomen which warrant a radiological investigation. Most of the cases on Ultrasound reveal a variety of findings related to diarrhoeal illness. Other primary abdominal pathology presenting as diarrhea is a rare thing to happen. This study aims to find out various ultrasound findings in all types of gastroenteritis, caec. diarrhoea, dysentery cases. especially of localised & diffuse pain abdomen.

Introduction : Diarrhoea is an alteration of normal bowel movement characterized by an increase in the water content, volume, or frequency of stools. In may 2014 those who attended to infectious diseases out patient department & ward, two youngsters of 24 & 20 years has short frequency of 2 diarrhoeal episodes & local tenderness at right iliac fossa. Cases were subjected to Ultrasound examination and found that both are acute appendicitis. Some days later a young lady came with complaints of 2-3 times diarrhoea. On examination we found that moderate to severe pallor clinically, tenderness in right iliac fossa also subjected to Ultrasound examination and found that ruptured ectopic-gestation with local haematoma. That is the cause for her pallor. She was immediately sent for obstetrician & gynaecologist. If these 3 cases were not subjected to Ultrasound examination we would have missed the main reasons. It is thought to be reactive diarrhoea happened to the above cases due to these primary factors.

This thought initiated for the Ultrasound findings in all types of diarrhoeal cases those who complaints of severe pain in gastroenteritis, acute diarrhoea, & dysentery.

Aim of the study : To find out various ultrasound findings in all types of gastroenteritis, caec. diarrhoea, dysentery cases. especially of localised & diffuse pain abdomen.

Materials & methods :

100 Selected cases of acute diarrhoeal diseases patients with severe pain abdomen from out patient & in patients subjected to ultrasound abdomen examination. All were adults.

Inclusion criteria : 1. Selected patients with severe pain abdomen above the age of 13 and above.

2. Fever of longer duration than diarrhoea.

3. HIV reactive persons included.

Exclusion criteria : No paediatric cases included.

Results :

46 persons were found normal findings.

Abnormalities / deviations in ultrasound examination & number of persons with concerned changes listed below.

1. 2 number of 1 male & female 20 & 24 years presented with acute appendicitis respectively.
2. 1 patient of 24 years lady presented with ruptured ectopic gestation with local haematoma formation. clinically found with severe pallor.
2. Hepatomegaly in 6 cases.
3. Increased grade 1-2 renal echogenicity observed in 8 cases.
4. Fluid filled bowels noted in 6 persons.
5. Minimal free fluid observed in 6 .no of patients.
4. Bilateral renal calculi in one case. & tiny multiple calculi in right kidney in 1 person.
5. One patient with poor window due to fatty abdomen, advised CECT abdomen.
6. Right ovarian cyst in 1 person.
- Fatty liver in 10 persons.
7. Bowel wall edema with minimal interbowel loop fluid in 1 patient.
8. Mild bowel wall edema in 1 patient.
9. Cholelithiasis in 1 patient.
10. Left hydrosalpinx in one lady.
11. Small bowel obstruction with epigastric hernia in 1 patient.
12. Altered liver echotexture in 3 patients.

Discussion :

Diarrhoea is an alteration of normal bowel movement characterized by an increase in the water content, volume, or frequency of stools. Secretory diarrhoeas, mostly acute and due to infections (bacteria, viruses, parasites), are by far the most important subtype of diarrhoeas in terms of frequency, incidence and mortality. Clinical classification of diarrhoea and an understanding of its main pathogenic mechanisms are fundamental for a diagnostic and therapeutic approach. A symptomatic anti-diarrhoeal therapy may be adopted alongside an aetiological therapy to improve the patient's clinical conditions. Clinical classification of diarrhoea and an understanding of the main pathogenic mechanisms that bring it about are vital for a diagnostic and therapeutic approach. The initial diagnostic strategy (Figure 1) in patients with acute diarrhoea is mainly based upon a proper collection of medical history and an evaluation of the

patient's clinical condition. This first diagnostic step often allows a good empirical therapy to be prescribed, whereas in patients with a poor general condition, or in those that do not respond to treatment, laboratory tests, radiological ultrasonography and, if required, an endoscopic examination of the intestine, must be undertaken. In both adults and children, rehydration is essential in managing patients with acute diarrhoea. Millions of lives have been saved thanks to the introduction of oral re-hydration therapy but this therapeutic approach, although essential in correcting dehydration, does not resolve the process that is at the base of diarrhoea and does not change the volume of faeces and evacuation frequency. In patients where the diagnosis leads to ascertainment of the cause of diarrhoea, therapy is usually aimed at removing the identified cause or aetiological agent. In many patients, therapy must begin before all the diagnostic tests have been exhausted (empirical therapy), since acute diarrhoea can greatly affect the quality of a patient's life and may compromise the health of children and elders.

with +/- thrombocytopenia induced plasma leakage changes observed .

6. 4 cases of bowel wall edema took 7 days to come down severe pain abdomen .
7. Hepatomegaly observed in some of the cases .
8. Grade 1 to 2 renal increased echogenicity noted in few cases .
9. No one among the patients maintain personnel hygiene & safe drinking water . All were explained this for part of educating the patient .

Conclusion:

Acute diarrhea and dysentery are most common clinical conditions of OPD visit. Pain abdomen is one of the most frequent symptom. Radiological work up is must in order to look into the underlying illness which occurs in a small proportion of patients like in our case.

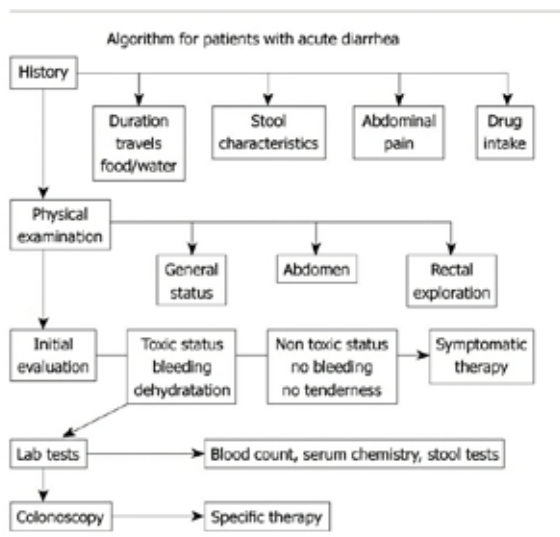


Fig1: Algorithm for patients with acute diarrhoea

The results of our present study are as follows.

1. Ultrasound is a Non invasive mode of study .
2. Young persons with very short course of diarrhoea with localised especially of right iliac fossa there is possibility of appendicitis .
3. Young child bearing age women with short history of diarrhoea if with localised pain of either of flanks to be screened & must ask for last menstrual period.
4. All patients to be seen for pallor which may be one of the cause for intraabdominal bleeding possibility.
5. Some cases of fever of longer duration than diarrhoea 2 cases presented with ascitis, mild pleural effusion are probably because of possibly viral fever

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