



"A CLINICAL STUDY OF ACUTE ABDOMEN IN A TEACHING HOSPITAL"

KEYWORDS

Acute abdomen, Acute appendicitis, abdominal pain

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ABSTRACT Background: Government General Hospital, Kurnool is the main referral center for the region. The hospital is a teaching Hospital under Dr.N.T.R University Of Health Sciences, Vijayawada.

Objectives: Our objective is to present updated results of the systemic analysis of 200 consecutively operated cases of acute abdomen of different etiologies in surgical emergency room of Government general hospital, Kurnool. The design is a prospective systemic analysis

Methodology: Our data sources were admissions in the surgical emergency room over a period of 2 years, from June 2013 to June 2015. Patients in age group of 18years and above of either sex presenting with signs and symptoms of acute abdomen who underwent surgery are included in the study.

Results: Outcomes from our study reveal that acute appendicitis and Duodenal Ulcer perforation are the main reasons for admissions requiring surgical intervention, in our region.

Conclusion: We conclude that a junior resident/surgeon in our region in a surgical emergency room should be well versed in diagnosing acute appendicitis and Duodenal Ulcer perforation.

INTRODUCTION :

Someone who becomes acutely ill and in whom symptoms and signs are chiefly related to the abdomen has an acute abdomen [1]. Acute abdominal pain is a cardinal symptom in acute abdomen, and is one of the most common symptoms of patient attending the emergency unit. The etiology of acute abdomen ranges from relatively mild to life threatening pathology, which may require immediate surgery.

The clinician skill and the knowledge of the local spectrum of acute abdomens are the keys for quick diagnosis and appropriate treatment. This present study is to find out the clinical patterns of acute abdomen in Government General Hospital, Kurnool.

MATERIALS AND METHODS :

We carried out systemic analysis of 200 consecutively operated patients from June 2013 to June 2015 for acute abdomen of different etiologies. Patients were examined, investigated, diagnosed and treated.

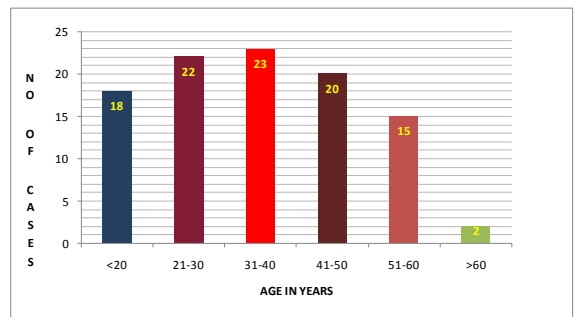
RESULTS :

On the basis of final diagnosis the following results were found:

TABLE 1 : AGE DISTRIBUTION IN ACUTE ABDOMEN

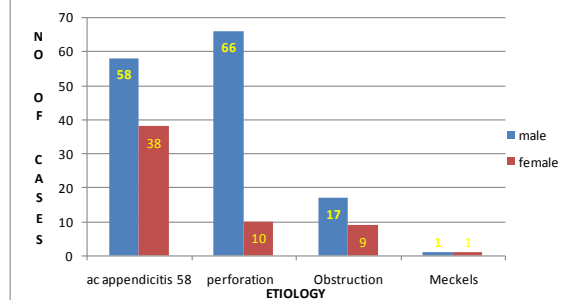
| AGE IN YEARS | NO. OF PATIENTS | PERCENTAGE |
|--------------|-----------------|------------|
| <20 | 28 | 14 |
| 21-30 | 70 | 35 |
| 31-40 | 42 | 21 |
| 41-50 | 30 | 15 |

| | | |
|-------|-----|-----|
| 51-60 | 22 | 11 |
| >60 | 08 | 04 |
| TOTAL | 200 | 100 |

**GRAPH 1: AGE DISTRIBUTION OF ACUTE ABDOMEN****TABLE 2 : ETIOLOGY OF ACUTE ABDOMEN**

| ETIOLOGY | NO OF CASES |
|--------------------|-------------|
| Perforation | 76 |
| DU | 38 |
| Appendicular | 20 |
| Ileal | 12 |
| Gastric | 06 |
| Acute appendicitis | 96 |

| ETIOLOGY | NO OF CASES |
|------------------------|-------------|
| Intestinal obstruction | 26 |
| SBO | 21 |
| LBO | 05 |
| Meckels diverticulitis | 02 |
| Total | 200 |



GRAPH 2: ETIOLOGY OF ACUTE ABDOMEN

TABLE 3 : ANALYSIS OF SYMPTOMS IN RELATION TO AETIOLOGY

| Etiology | No of Cases | Pain Abdo-men | Vomit-ing | Consti-pation | Abd. Disten-sion | Fever |
|------------------------|-------------|---------------|--------------|---------------|------------------|--------------|
| PERFORATION | | | | | | |
| Duode-nal | 38 | 38 100% | 28 73.68% | 17 44.74% | 34 89.47% | 15 39.47% |
| Appen-dicular | 20 | 20 100% | 16 80% | 13 65% | 14 70% | 16 80% |
| Ileal | 12 | 12 100% | 10 83.33% | 7 58.33% | 11 91.66% | 8 66.67% |
| Gastric | 06 | 06 100% | 2 33.33% | 3 50% | 5 83.33% | 2 33.33% |
| Appen-dicitis | 96 | 96 100% | 72 75% | 19 19.8% | 06 6.25% | 86 89.6% |
| OBSTRUCTION | | | | | | |
| SBO | 21 | 19 90.48% | 18 85.71% | 19 90.48% | 21 100% | 13 61.9% |
| LBO | 05 | 04 80% | 4 80% | 4 80% | 5 100% | 3 60% |
| Meckels Diverticulitis | 02 | 2 100% | 2 100% | 1 50% | 1 50% | 2 100% |
| Total | 200 | 197 98.5% | 152 76% | 84 42% | 97 48.5% | 145 72.5% |

TABLE 4 : SIGNS OF ACUTE ABDOMEN IN RELATION TO ETIOLOGY

| Etiology | No of Cases | Temp | Dehydration | Distension | VP | Gaurding | Rigidity | |
|--------------------|-------------|--------------|--------------|--------------|----|------------|------------|--------------|
| PERFORATION | | | | | | | | |
| Duodenal | 38 | 12 31.58% | 26 68.42% | 34 89.47% | - | 38 100% | 38 100% | 33 86.84% |
| Appen-dicular | 20 | 15 75% | 13 65% | 18 90% | - | 20 100% | 20 100% | 8 40% |
| Ileal | 12 | 9 75% | 8 66.67% | 11 91.66% | - | 12 100% | 12 100% | 6 50% |

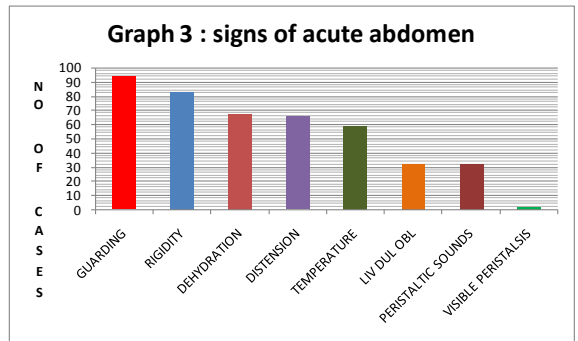
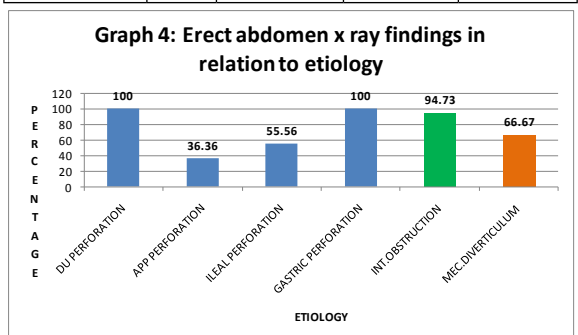


TABLE 5 : ERRECT ABDOMEN X-RAY FINDINGS IN RELATION TO AETIOLOGY

| Etiology | No of Cases | X Ray Erect Abdomen Gas Under Diaphragm | X Ray Erect Abdomen Shows MAF Levels | Negative |
|----------------------|-------------|---|--------------------------------------|-------------|
| Perforation | 76 | | | |
| Duodenal | 38 | 38 100% | - | - |
| Appen-dicular | 20 | 7 35% | - | 13 65% |
| Ileal | 12 | 8 66.66% | - | 4 33.33% |
| Gastric | 6 | 6 100% | - | - |
| Appendicitis | 96 | - | - | - |
| Int Obstruction | 26 | - | 25 96.15% | 1 3.84% |
| Meckels Diverticulum | 2 | - | 1 50% | 1 50% |
| Total | 200 | | | |



| | | | | | | | | | |
|------------------------|-----|--------------|--------------|-------------|----------|------------|-------------|-----------|-------------|
| Gastric | 6 | 2 33.33% | 5 83.33% | 5 83.33% | - | 6 100% | 6 100% | 6 100% | - |
| Appendicitis | 96 | 86 89.58% | 62 64.58% | 7 7.3% | - | 96 100% | 65 67.7% | - | 72 80.2% |
| OBSTRUCTION | | | | | | | | | |
| SBO | 21 | 7 33.33% | 18 85.71% | 21 100% | 4 19% | 16 76% | 16 76% | - | 10 47.6% |
| LBO | 5 | 2 40% | 2 40% | 5 100% | - | 3 60% | 2 40% | - | 1 20% |
| Meckels Diverticulitis | 2 | 2 100% | 1 50% | 1 50% | - | 2 100% | 2 100% | - | - |
| Total | 200 | 135 67.5% | 135 67.5% | 102 51% | 4 19% | 193 96.5% | 161 80.5% | 53 26.5% | 88 44% |

TABLE 6 : TREATMENT OF VARIOUS ACUTE ABDOMEN

| Etiology | Operations | No of Cases | Percentage |
|------------------------|---|-------------|------------|
| PERFORATION | | | |
| Duodenal | Closure of Perforation With Omental Patch | 38 | 100% |
| Appendicular | Appendicectomy | 20 | 100% |
| Ileal | Simple Closure of Perforation | 8 | 66.67% |
| | Resection And Anastomosis | 3 | 25% |
| | Ileostomy | 1 | 8.3% |
| Gastric | Closure of Perforation With Omental Patch | 6 | 100% |
| APPENDICITIS | Appendicectomy | 96 | 100% |
| INTESTINAL OBSTRUCTION | | | |
| SBO | Resection And Anastomosis of Small Bowel | 8 | 30.76% |
| | Adhesiolysis | 9 | 34.6% |
| | Band Release | 2 | 7.69% |
| | Ileotransverse Anastomosis | 2 | 7.69% |
| LBO | Resection and anastomosis of large bowel | 2 | 7.69% |
| | Colorectal Anastomosis | 2 | 7.69% |
| | colostomy | 1 | 3.84% |
| Meckels Diverticulitis | Diverticulectomy And End To End Anastomosis | 2 | 100% |

TABLE 7 : POSTOPERATIVE COMPLICATIONS IN ACUTE ABDOMEN

| Etiology | No of Cases | Wound Infection | Respiratory Infection | Incisional Hernia | Hypotension | Fecal Fistula | Septicemia | Mortality |
|------------------------|-------------|-----------------|-----------------------|-------------------|-------------|---------------|------------|-----------|
| Perforation | | | | | | | | |
| Duodenal | 38 | 13 | 6 | 4 | 8 | 2 | 6 | 7 |
| Appendicular | 20 | 6 | 3 | 1 | - | - | - | - |
| Ileal | 12 | 6 | 4 | 4 | 4 | 2 | 4 | 4 |
| Gastric | 6 | 2 | 2 | - | 1 | - | 2 | 2 |
| Appendicitis | 96 | 14 | 5 | - | - | - | - | - |
| Intestinal Obstruction | 26 | 8 | 10 | 5 | 9 | 4 | 6 | 4 |
| Meckels Diverticulitis | 2 | - | - | - | - | - | - | - |
| Total | 200 | 49 | 30 | 14 | 22 | 8 | 18 | 17 |

DISCUSSION :

A total of 200 cases were recorded. The sex ratio male : female was: 2.5: 1 The ages ranged from 18 to more than 60 years. The most frequent causes of admission were Acute appendicitis (96 cases), Perforation due to hollow viscus(76 cases), Intestinal obstruction (26cases) and Meckel's diverticulitis(2cases). There are a very few reports in the literature, especially in India, on acute abdomen.

In Perforation due to hollow viscus(76 cases),perforated Duodenal ulcer was the major culprit in the causation of peritonitis (38cases) followed closely by the perforated appendix (20cases). Incidence of biliary peritonitis was rather low as compared to the reported incidence of 6-25% in the Western Literature. [3],[4] Enteric perforation of the small intestine constitutes a significant group in our country and was responsible in 12 cases of peritonitis in this

study which is in confirmity with the series reported by Bhansali [1] and Budhraja et al [2] .

Intestinal obstruction was seen in 26 cases.Out of these,Small bowel obstruction was seen in 21 cases and Large bowel obstruction in 5 cases.

The higher mortality rate is probably due to the delayed arrival of patients to the hospital, presenting after 48 hours of onset of symptoms.

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