

Analysis Of Acute Abdomen Admissions In The Surgical Emergency Room Of A Developing Third World Country

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Citation

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Abstract

Our objective is to present updated results of the systemic analysis of acute abdomen in surgical emergency of SMHS hospital, Kashmir, India, a hospital in a third world country. The design is a prospective systematic analysis. Our data sources were admissions in the surgical emergency room over a period of 6 months (from April 15th 2006 to October 15th 2006). Only patients admitted for more than 24 hours were included in the study. Outcomes from our study reveal that acute appendicitis and ascariasis are the main reasons for the admission in our region. We conclude that a junior resident in our region and in a surgical emergency room should be well versed in diagnosing acute appendicitis. Also due to poor health education and lack of basic facilities ascariasis continues to be a major cause of admissions in our setup.

INTRODUCTION

Acute abdomen is one of the commonest causes of admission in the surgical emergency room even in the present era where trauma cases have increased manifold. The pattern of acute abdomen admissions varies from one place to another depending upon the socioeconomic, dietary, environmental factors and public health setup.

METHODS

We carried out a systematic analysis of 800 patients admitted with a diagnosis of acute abdomen. Using an abdominal page chart as used in OMGE series, patients were examined, investigated, diagnosed and treated.

Figure 1

228 — II COMMON PRESENTING PROBLEMS

| ABDOMINAL PAIN CHART | | | |
|--------------------------------------|---------------------|---------------------------|----------------------------|
| NAME | | REG. NUMBER | |
| MALE | FEMALE | AGE | FORM FILLED BY |
| MODE OF ARRIVAL | | DATE | TIME |
| PAIN | Site of Pain | Aggravating Factors | Progression of Pain |
| | At Onset | movement | safer |
| | At Present | coughing | same |
| | | respiration | worse |
| | | food | Duration |
| | | other | Type |
| | | none | intermittent |
| | | | steady |
| | | | colicky |
| | | | Severity |
| | | | moderate |
| | | | severe |
| HISTORY | Nausea | Bowels | Previous Similar Pain |
| | yes no | normal | yes no |
| | Vomiting | constipation | Previous Abdominal Surgery |
| | yes no | diarrhea | yes no |
| Anorexia | blood | Drugs for Abdominal Pain | |
| yes no | stools | yes no | |
| Indigestion | Micturition | Female-LMP | |
| yes no | normal | pregnant | |
| Jaundice | frequency | vaginal discharge | |
| yes no | dysuria | diarrhea | |
| | dark | | |
| | hematuria | | |
| EXAMINATION | Temp. | Pulse | Location of Tenderness |
| | BP | | |
| | Mood | | Rebound |
| | normal | | yes no |
| | upset | | Guarding |
| | anxious | | yes no |
| | Color | | Rigidity |
| | normal | | yes no |
| | flushed | | Mass |
| | jaundiced | | yes no |
| | icteric | | Murphy's Sign Present |
| | Intestinal Movement | | yes no |
| normal | | Bowel Sounds | |
| poor/nil | | normal | |
| peristalsis | | absent | |
| Scars | | increased | |
| yes no | | Rectal-Vaginal Tenderness | |
| Distention | | left | |
| yes no | | right | |
| | | general | |
| | | mass | |
| | | none | |
| Initial Diagnosis & Plan | | | |
| Results | | | |
| amylase | | | |
| blood count (WBC) | | | |
| urine | | | |
| x-ray | | | |
| other | | | |
| Diagnosis & Plan after Investigation | | | |
| (Time) | | | |
| Discharge Diagnosis | | | |

History and examination of other systems on separate case notes.

Figure 2

Results From Our Series: On the basis of final diagnosis the following results were found:

| S no. | Diagnosis | Patients number | Percentage % |
|-------|-----------------------------|-----------------|--------------|
| 1 | Acute appendicitis | 178 | 22.2 |
| 2 | Ascariasis | 130 | 16.2 |
| 3 | Urological disorder | 102 | 12.7 |
| 4 | Acute cholecystitis | 84 | 10.5 |
| 5 | Acute gastritis | 66 | 8.2 |
| 6 | Acute pancreatitis | 40 | 5 |
| 7 | Appendicular lump | 34 | 4.2 |
| 8 | Acute gynecological disease | 14 | 3.5 |
| 9 | Malignancy | 11 | 2.7 |
| 10 | Nonspecific | 9 | 2.6 |
| 11 | Small bowel obstruction | 7 | 1.7 |
| 12 | Mesenteric lymphadenitis | 7 | 1.7 |
| 13 | Perforated peptic ulcer | 6 | 1.5 |
| 14 | Adhesion obstruction | 6 | 1.5 |
| 15 | Liver abscess | 2 | 0.5 |
| 16 | Miscellaneous | 7 | 1.7 |

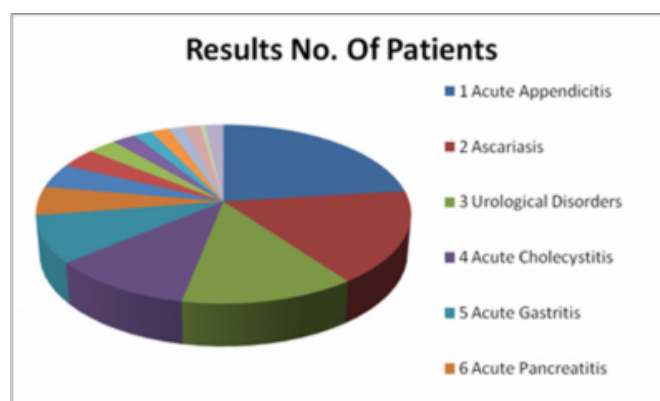
Figure 3

Studies of Acute Abdomen from Developed Countries

| DIAGNOSIS | OMGE | WILSON | IRVIN | BREWER | DE DOMBAL | HAWTHORN |
|----------------------------|------|--------|-------|--------|-----------|----------|
| NON SPECIFIC | 34.0 | 45.6 | 34.9 | 41.3 | 50.5 | 36.0 |
| ACUTE APPENDICITIS | 28.1 | 15.6 | 16.8 | 4.3 | 26.3 | 14.9 |
| ACUTE CHOLECYSTITIS | 9.7 | 5.8 | 5.1 | 2.5 | 7.6 | 5.9 |
| SMALL BOWEL OBSTRUCTION | 4.1 | 2.6 | 14.8 | 2.5 | 3.6 | 8.6 |
| ACUTE GYN. DISEASE | 4.0 | 4.0 | 1.1 | 8.5 | - | - |
| ACUTE PANCREATITIS | 2.9 | 1.3 | 2.4 | - | 2.9 | 2.1 |
| UROLOGIC DISORDERS | 2.9 | 4.7 | 5.9 | 11.4 | - | 12.8 |
| PERFORATED PEPTIC ULCER | 2.5 | 2.3 | 2.5 | 2.0 | 3.1 | - |
| CANCER | 1.5 | - | 3.0 | - | - | - |
| DIVERTICULAR DISEASE | 1.5 | 1.1 | 3.9 | - | 2.0 | 3.0 |
| DYSPEPSIA | 1.4 | 7.6 | 1.4 | 1.4 | - | - |
| GASTROENTERITIS | - | - | 0.3 | 6.9 | - | 5.1 |
| INFLAMMATORY BOWEL DISEASE | - | - | 0.8 | - | - | 2.1 |
| MESENTERIC ADENITIS | - | 3.6 | - | - | - | 1.5 |
| MISC. | 7.5 | 3.7 | 7.1 | 17.8 | 4.0 | - |

Figure 4

Pie Chart From Our Series



DISCUSSION

The evidence from our study suggests that more than a quarter of patients had appendix related diseases. Thus, the junior resident should be well versed with diagnosing this condition. Alvarado's score is a very useful tool in this aspect for the surgical resident in the emergency room.

Due to lack of health education and poor facilities, Ascariasis is the second most common reason for admission in our hospital. The pattern of presentation is very varied. Problems of patients admitted range from worm colic and worm obstruction to worms in the hepatobiliary system, the main reason being lack of education and poor sanitary facilities.

Some diseases that are quite common causes of admission as acute abdomen in the west are rare in our society. This variation is attributed to differences in socio-economic, dietary, environmental and public health facilities.

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