

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

M Wani, M Khan, M Wani, A Durrani, B Singh, M Shafi

## Citation

M Wani, M Khan, M Wani, A Durrani, B Singh, M Shafi. *Analysis Of Acute Abdomen Admissions In The Surgical Emergency Room Of A Developing Third World Country*. The Internet Journal of Surgery. 2006 Volume 11 Number 2.

## 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 Chest    | movement<br>coughing<br>respiration<br>food<br>other<br>none          | better<br>same<br>worse  |
|  | At Present  | Relieving Factors   | Duration   |
| Radiation  | lying still<br>vomiting<br>ascariasis<br>food<br>other<br>none                                  | Type<br>intermittent<br>steady<br>colicky                             | Severity<br>moderate<br>severe   |
| HISTORY  | Nausea<br>yes no  | Bowels<br>normal<br>constipation<br>diarrhea<br>blood<br>mucus        | Previous Similar Pain<br>yes no  |
|  | Vomiting<br>yes no  | Medication<br>normal<br>frequency<br>dysuria<br>dark<br>hematuria     | Previous Abdominal Surgery<br>yes no   |
|  | Anorexia<br>yes no  |   | Drugs for Abdominal Pain<br>yes no   |
|  | Indigestion<br>yes no   |   | Female-LMP<br>pregnant<br>vaginal discharge<br>dyspareunia   |
| EXAMINATION  | Temp. _____   | Pulse _____   | Location of Tenderness  |
|  | BP _____  | Mood<br>normal<br>upset<br>anxious                                    | Rebound<br>yes no  |
|  | Color<br>normal<br>pale<br>flushed<br>jaundiced<br>cyanotic                                     | Guarding<br>yes no  | Rigidity<br>yes no   |
|  | Mass<br>yes no  | Murphy's Sign Present<br>yes no                                       | Diagnosis & Plan   |
|  | Intestinal Movement<br>normal<br>poor/nil<br>peristalsis  | Bowel Sounds<br>normal<br>absent<br>increased                         | Results<br>amylase<br>blood count (HSC)<br>urine<br>x-ray  |
|  | Scars<br>yes no   | Rectal-Vaginal Tenderness<br>left<br>right<br>general<br>mass<br>none | Diagnosis & Plan after Investigation   |
|  | Date/Time<br>yes no   |   | (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          |

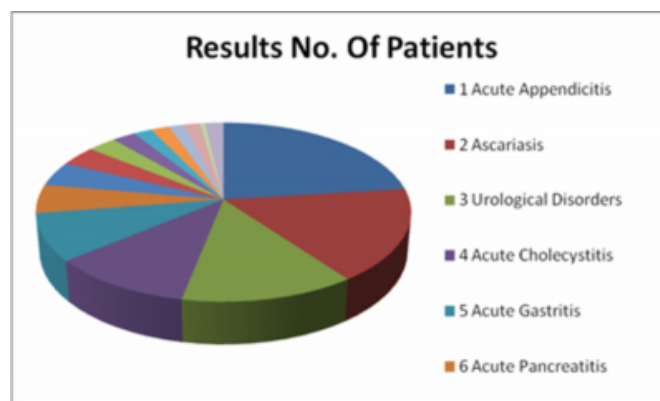
**Figure 3**

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.

**CORRESPONDENCE TO**

Mudassir Maqbool Wani Doctors Hostel Room no 20 GMC Srinagar, JK, India Pin 190010 Email mudds\_123@Yahoo.co.in Phone no. 9906533228

**References**

1. de Dombal FT. Diagnosis of Acute Abdominal Pain, 2nd ed., Churchill Livingstone, London, 1991.
2. Brever RJ, Golden GT, Hitch DG et al. Abdominal pain; an analysis of 1000 consecutive cases in a university hospital. Am J Surg 131:219, 1976.
3. Haworth IE. Abdominal pain as a cause of acute abdomen admission to hospital. J R Coll Surg Edinb, 37:389, 1992.
4. de Dombal FT. The OMGE acute abdominal pain survey, Progress report 1986. Scand J Gastroenterology 144(suppl):35, 1988.
5. Irvin TT. Abdominal pain , a surgical audit of 1190 emergency admissions. Br J Surg 76:1121, 1989.
6. Wilson DH, Wilson PD, Walmsey RG et al. Diagnosis of

acute abdominal pain in the accident and emergency

department. Br J Surg 64:249, 1977.

**Author Information**

**Mudassir Maqbool Wani**

Department of General Surgery, SMHS Hospital

**Mussadiq A. Khan**

Department of General Surgery, SMHS Hospital

**Mubashir Maqbool Wani**

Department of General Surgery, SMHS Hospital

**Abdul Munnon Durrani**

Department of General Surgery, SMHS Hospital

**Baint Singh**

Department of General Surgery, SMHS Hospital

**Muhhamed Shafi**

Department of General Surgery, SMHS Hospital