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## Clinical Spectrum of Acute Abdomen in Cape Coast

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# Clinical Spectrum of Acute Abdomen in Cape Coast

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## Abstract

**Background:** Central Regional Hospital, Cape Coast, Ghana is the main referral center for the region.

The hospital has been redesignated a Teaching Hospital to serve as the main teaching base for the School of Medical Sciences, University of Cape Coast. This study was done as part of assessment of the hospital's emergency surgical needs for purpose of planning and resource allocation.

**Objectives:** The study objectives were to quantify and to characterize cases of acute abdominal emergencies operated at the Central Regional Hospital, and to assess the clinicians diagnostic accuracy by comparing the preoperative diagnosis with the postoperative findings.

**Methodology:** A retrospective and comparative study was performed based on the records of the Accident/emergency, wards, and theatre units, over a period from October 2009 to September 2010.

A total of 122 cases were recorded.

**Results:** Ruptured ectopic cyesis(23.8%) was the most frequent preoperative diagnosis, followed by non specific abdominal pain(18.9%), typhoid perforation(13.1%), acute appendicitis(12.3%) and intestinal obstruction(9.8%).

Post operatively, ruptured ectopic cyesis(38.9%), acute appendicitis(16.7%) and typhoid perforation(12.5%) were recorded.

The preoperative diagnosis was wrong in 2.7% (n=2) of cases.

**Conclusion:** Ruptured ectopic cyesis was the most common abdominal condition operated on and incidence of typhoid perforation is high. Preoperative diagnoses was wrong in 2 cases.

**Key words:** Acute abdomen, ectopic cyesis, abdominal pain

## 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 Cape Coast.

## Materials and methods

The study has been done, based on the hospital records ( the accident and emergency, the theatre unit, obstetrics and gynecology (O/G) and the surgical wards, and the biostatistics unit).

The study was conducted over the period from 1st october 2009 to 30th September 2010. The study design was retrospective descriptive and comparative study with non probability sampling technique.

All patients with acute abdominal conditions were included except those with known medical causes for the pain.

Data was collected and analysed using EPI-INFO version 3.5.1. August 13 2008.

The retrospective nature of our study was a limitation as a more in depth analysis other than the clinical spectrum could not be done.

## Results

A total of 122 cases were recorded. The sex ratio male : female was: 1.06: 1

The ages ranged from 1 to 75 years (mean age 31.3 years, standard deviation 14.93).

The most frequent causes of admission were, ruptured ectopic cyesis 23.8% (n=29), followed by non specific abdominal pain (NSAP) 18.9% (n=23), acute appendicitis 18% (n=22), typhoid perforation 13.1% (n=16) and intestinal obstruction 9.8% (n=12).

Illustration 1(attached) shows the summary of the different causes of acute abdomen.

Among the 59 female patients ruptured ectopic cyesis 49.2% (n=29) was the leading cause followed by NSAP 22% (n=13); while in the male acute appendicitis 20.6% (n=13) and typhoid perforation 20.6% (n=13)were the commonest causes.

72 (58.2%) of the cases had surgery done and the preoperative diagnosis was not confirmed in 2.7% (n=2) of cases.

Non operative conditions included NSAP as well cases

of intestinal obstruction managed conservatively.

The most frequent post op diagnosis among the operated cases was ruptured ectopic cyesis (38.9%), followed by acute appendicitis (16.7%) and typhoid perforation (12.5%).

The comparison of the top four causes of acute abdomen in this and similar studies is as shown in Illustration 2 (attached).

## Discussion

While the most common cause of acute abdomen in most surgical units is acute appendicitis, our study had found that ruptured ectopic cyesis (23.8%) is the leading cause of acute abdomen in Cape Coast.

This can be explained by the fact that in our hospital the surgical theatre caters for both surgical as well as gynaecological emergencies, whilst in most hospitals where similar study has been carried out, the surgical unit is autonomous and rarely manages cases other than surgical.

The other leading causes of acute abdomen in our study were NSAP (18.9%) and acute appendicitis (18%). Our results contrasts with the findings in Accra, Ghana by Naaeder and Archampong[5] and in Kharian, Turkey by Mohammad and Danish[9].

Excluding the gynaecological causes our study confirms that acute appendicitis and NSAP, which ever order they come, are the most frequent causes of acute abdomen in most parts of the world.

Whilst we agree that the most important diagnostic distinction surgeons have to make in diagnosis of acute abdomen is that between acute appendicitis and non-specific abdominal pain [5,9], nevertheless in Cape Coast surgeons will also have to have a high diagnostic suspicion of typhoid perforation.

Using the operative findings as a measure of preoperative diagnostic accuracy the clinician's diagnostic acumen is commendable.

A prospective study is now being done so that other important analyses of these cases can be done.

## Conclusion(s)

Ruptured ectopic cyesis is the most common cause of acute abdomen in cape Coast. Incidence of Typhoid perforation is high. The clinical diagnostic accuracy preoperatively is also very high.

The preoperative diagnosis was accurate in most of the cases.

## References

1. E. A Badoe, E.Q Archampong, J.T. da Rocha-Afodu. Principle and practice of Surgery, including pathology in the tropics. 4th ed. Accra: Assemblies of God Literature Center Ltd, 2009: 546-
2. Norman S. Williams, Christopher J.K Bulstrode and P. Rovon O'connell. Bailey and Love's Short Practice of Surgery. 25th ed. London: Hodder Education, an Hachette UK company, 2008:146-148.
3. Murray Longmore, Ian Wilkinson, Edward H. Davidson, Alexander Foulkes, Ahmad R. Mafi. Oxford handbook of clinical medicine. 8th Ed. New York: Oxford University press, 2010: 608-625.
4. Michael Ohene-Yeboah. Acute surgical admissions for abdominal pain in adults in Kumasi, Ghana. ANZ Journal of Surgery. October 2006;Volume76, Issue10: 898-903.
5. Naaeder, S.B. and Archampong, E.Q. Clinical spectrum of acute abdominal pain in Accra, Ghana. West Afr. J. Med. 1999; 18: 13-16.
6. Awori, M., & Jani P. Surgical implications of abdominal pain in patients presenting to the Kenyatta National Hospital casualty department with abdominal pain. East Africa Medical Journal - Vol. 82, No. 6 (2005)
7. M .E Asuquo, N Ogbu, J Udosen, R Ekpo, C Agbor, M Ozinko and K Emelike. Case Report Acute abdomen from gossypiboma: A Case series and review of literature. Department of Surgery, University of Calabar Teaching Hospital, Calabar. Nigerian Journal of Surgical Research Vol.8 No 3 – 4, 2006; 174 -176.
8. Z. Türkyilmaz, Sönmez, O. Konus, B. Demirogullari, R. Karabulut, A. Can Basaklar and N. Kale. Diagnostic value of plain abdominal radiographs in acute appendicitis in children. East African Medical Journal Vol. 81 No 2 February 2004
9. Dr. muhammad asif, Dr. javed sajjad hashmi, Dr. danish almas Acute abdomen; causes. Professional Med Journal; 15(1), Mar 2008: 120-124

## Illustrations

### Illustration 1

Shows the summary of the different causes of acute abdomen.

#### Clinical diagnosis

<b>DIANOSIS</b>	<b>PERCENTAGE</b>	
Ruptured ectopic cysis	23.8	(n=29)
Non specific abdominal pain	18.9	(n=23)
Acute appendicitis	18.0	(=22),
Typhoid perforation	13.1	(n=16)
Intestinal obstruction	9.8	(n=12).
Gastro-duodenal perforation	4.9	(n=6)
Abdominal trauma	8.2	(n=10)
Other O/G pathology	1.6	(n=2)
Other surgical pathology	1.6	(n=2)
<b>TOTAL</b>	<b>100</b>	<b>(n=122)</b>

## Illustration 2

Comparison of acute abdominal studies

<b>CAUSES</b>	<b>Our study</b>	<b>UG/MS Accra Ghana</b>	<b>Military hospital Kharian / Turkey</b>
<b>Appendicitis</b>	18%	23.5%	21.4%
<b>NSAP</b>	18.9%	21.4%	18.9%
<b>Typhoid perforation</b>	13.1%	-	-
<b>Intestinal obstruction</b>	9.8%	10.8%	14.5%

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