

ORIGINAL RESEARCH ARTICLE

APPENDICECTOMY PROFILES AT LUMBINI ZONAL HOSPITAL

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ABSTRACT

INTRODUCTION: Acute appendicitis is one of the main surgical problems in emergency of different levels of hospital. Appendicectomy is the most common surgical emergency operation. The aim of this study was to find out the appendicectomy profiles at periphery i.e., LZH, Butwal. **METHODS:** A retrospective analysis of the patients managed with appendicectomy for 2064-2065 B.S. at Lumbini Zonal Hospital, Butwal. **RESULTS:** Total 237 appendicectomies done from 2064-2065 B.S. at Lumbini Zonal Hospital. Age varied 4 to 80 years. Male and Female percentages found 69% and 31%. Most surgery performed during Chaitra and Baisakh, showed seasonal variation of appendicitis. **CONCLUSIONS:** Based on our findings, it is recommended that prospective study for acute appendicitis is possible not only in centre level hospital or in medical college, but also in zonal level hospital, like in LZH, Butwal.

KEYWORDS: Acute appendicitis, appendicectomy, Lumbini

INTRODUCTION

Acute appendicitis is the most common surgical emergency in developed countries and is most common in the second decade of life. By adulthood, one in six people will have undergone removal of their appendix. The incidence of the disease is increasing in the developing areas of the world, but decreasing in western countries.¹

The term appendicitis was first described by Reginald H. Fitz in 1886.² Acute appendicitis when presenting in a teenager and with a 'classical history presents the surgeon with little by way of a diagnostic challenge. The disease is notorious in its ability to simulate other conditions and in the frequency with which it too can be imitated by other pathologies. The emergency surgeon must appreciate that the decision that's needs to be made when considering the possibility of appendicitis is not whether the diagnosis is correct but whether an operation is indicated. Diagnosis of acute appendicitis is often a challenging job to the surgeon. Delayed diagnosis can lead to complications with high mortality and morbidity.^{3,4}

When a patient is seen during the first day or two of an attack of acute appendicitis, no questions arise as to correct treatment, it is universally agreed that the appendix should be removed without delay.⁵ The first successful appendicectomy was done in Davenport, Iowa in 1885 AD by Dr. William West Grant. The patient was Marygarside, age 22. CT scans to assess younger women with suspected acute appendicitis may help reduce unnecessary surgeries, a new study shows.⁶ The treatment for appendicitis is antibiotics and surgical removal of the appendix [appendicectomy]. Complications of appendicectomy include wound infections, abscess and obstruction of the intestine. One of the options for managing mild to moderately severe appendicitis that is unlikely to be associated with major perforation of the appendix and complications is treatment with antibiotics, but no surgery. The rate of recurrence is 24%.⁷

METHODS:

This is a retrospective study of the patients who underwent appendicectomy over 2064-2065 B.S. at Lumbini Zonal Hospital, Butwal, Nepal. Institutional

approval was taken. All the patients underwent appendicectomy over 2 years were included in the study. All age groups, both sex, year distribution, ethnic distribution and seasonal variations are included. Other suspected case of acute appendicitis, appendicular abscess/lump were excluded from this study. Data were analysed as by standard statistical methods.

RESULTS:

Total 237 appendicectomies done over 2064-2065 B.S. at Lumbini Zonal Hospital. Among them, male was 164[69%] and female 73[31%]. By year distribution in 2064 B.S. performed 109 and in 2065 B.S. 128 appendectomies. It showed that the trends was increasing. Total operation at LZH, Butwal during 2064-2065B.S. under department of surgery was 2103.

By age distribution <20 years found 93,21-40 years age range found 102,41-60 age groups found 35 and above 60 years age found only 7 appendicectomies. The eldest appendicectomy performed at 80 years and youngest at 4 years. Ethnicity distribution showed that Brahman community was 80, Chhetry community 49, Magar community 38, Tharu community 25, Gurung community 15 and other ethnic group 30 appendicectomies. The maximum number of appendicectomy done in chaitra 2064, which was 26 in numbers. The minimum number of appendicectomy was in 2064 B.S. Mangshir month, which was only 3. It showed that there was seasonal variation of acute appendicitis. There was no mortality among appendicectomy cases and there were only 7 cases [3%] of superficial post-operative wound infection. There were no other morbidity post-operatively.

TABLE [1] SEX DISTRIBUTIONS

SEX	FREQUENCY
MALE	164
FEMALE	73
TOTAL	237

TABLE [2] AGE DISTRIBUTION

AGE RANGE	FREQUENCY
<20 YEARS	93
21-40 YEARS	102
41-60 YEARS	35
>60 YEARS	7

TABLE [3] YEARS DISTRIBUTION

YEAR	FREQUENCY
2064 B.S.	109
2065 B.S.	128
TOTAL	237

TABLE [4] ETHNICITY DISTRIBUTION

ETHNICITY GROUP	FREQUENCY
BRAHMAN	80
CHHETRY	49
MAGAR	38
THARU	25
GURUNG	15
OTHER	30

DISCUSSION:

Acute appendicitis is a very common cause of acute abdomen requiring surgical interventions. Appendicitis is sufficiently common that appendicectomy is the most frequently performed urgent abdominal operation, and is often the first major procedure performed by a surgeon in training. Yet despite extraordinary advances in modern radiographic imaging and diagnostic laboratory investigations, the diagnosis of appendicitis remain essentially clinical requiring a mixture of observation, clinical acumen in surgical science.⁸

Aetiology of the acute appendicitis is still not clearly known. Clinically 2 varieties are seen i.e. non obstructive type. Obstructive type progresses very fast. Variation of clinical features are observed according to the nature of the disease, the position of the appendix and age of the patients.⁹

Appendicitis is common in white races, young males and in those who are on westernized diet.^[10] For diagnosis of appendicitis, different scoring are using like ALVARADO SCORING, TZANAKI'S SCORING and other computer aided diagnostic aids. Alvarado score has been validated in various studies with the sensitivity of 73.91% and specificity of 76.92%.¹¹ Tzanakis et al have reported the sensitivity, specificity and accuracy of 95.4%,97.4% and 96.5% respectively.¹²

The natural history of appendicitis includes resolution, ulceration, fibrosis, suppuration, recurrent appendicitis, gangrene, peritonitis. CT Scanning is the best single radiographic study in

the patient with unexplained abdominal pain.¹³ We are not using CT scanning for the acute appendicitis. We did only open method of appendicectomy and mostly by GRID-IRON incision. Appendicectomy can be performed by open method and laparoscopic method.

In our study, most of appendicectomy performed in male i.e. 164[69%]. Youngest age of appendicectomy was 4 years in our hospital and eldest was 80 years. Most of the patients 21-40 years range i.e. 102 and below 20 years age group was 93. In Butwal there is AMDA hospital, having paediatric surgeon and they are also operating children i.e. below 15 years including appendicitis, that's why the number of appendicectomy <20 years is second most in our study, where as in other studies this is the most frequent group of age for appendicitis. The ethnic group of appendicectomy showed Brahman 80, chhetry 49, magar 38. Our data showed the ratio of male and female slightly higher incidence in male. The reasons for high appendicectomy in Brahman and Chhetry community are, high population of these communities, well educated and probably westernized dietary habit.

Acute appendicitis most commonly affects individuals of age group 10-20 years. Acute appendicitis is rare before 2 years. But when it occurs perforation and peritonitis are common carrying poor prognosis. Incidence of removal of normal appendix is 30%. Stump appendicitis is rare entity after appendicectomy. The incidence of appendicular lump is 10% and usually recovers with ochsner-sherren regime. The risks of recurrence is 5 to 14 %, Hence routine interval appendicectomy is not required for appendicular lump.¹⁴

In western countries the maximum incidence occurs in an individual's teens and 20's. The male-female ratio is approximately 2:1, gradually shifts after age 25 until a 1:1 ratio is reached. The ethnicity group study is not found in other study. We rarely used histopathological studies after appendicectomy. Most of the patient i.e. >15 years, we used spinal anaesthesia. For <15 years patient used endotracheal intubation and GA for appendicectomy.

As this is retrospective study, we have many errors. To compare other results we should do prospective study. The prospective study for acute appendicitis

is possible at zonal hospital, like LZH, Butwal and not only in centre levels hospital or medical colleges. So this type of effort showed the surgical emergency activities at LZH, Butwal.

CONCLUSION:

Acute appendicitis is common surgical emergency. Appendicectomy is the one of the common surgical emergency operation at the periphery i.e. at the lumbini zonal hospital. It is only second most emergency operation after I and D for abscess. Fair amount of operation performed at the lumbini zonal hospital and it encourages us for prospective study in future.

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