

Clinical Study of Appendicular Lump Retrospective and Prospective (A Study of 100 Cases)

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Abstract: We present a study of 100 cases of appendicular lump admitted to us in a tertiary level health care set up of Shree M. P. Shah Government Medical College and Guru Gobind Singh Government Hospital, Jamnagar, Gujarat.

We laid down the inclusion and exclusion criteria, made an elaborated surgical proforma, collected various data and analyzed all of them. At the completion of our study we could summarize our data. With our data, we could conclude that for appendicular lump initial conservative management is still having a place and at times it can be considered wiser also. However advancements in instruments and help from imaging can make a surgeon bold enough to operate such patients. A larger study is always welcomed.

Key Words: Appendicular Lump; Appendicitis; Laparoscopic appendectomy; standard appendectomy.

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I. Aims And Objectives

- To determine the incidence of appendicular lump presentations among patients diagnosed with appendicitis.
- To find out most commonly affected age group.
- To correlate the cause of appendicular lump formation in both retrospective and prospective ways.
- To study the different modes of presentation, investigation in such patients and their management.

II. Observations And Results

In our study, 100 cases of appendicular lump of both gender between the age group of 10 to 80 years were taken over period of two and half year.

Patients mainly presented either with complaints of abdominal pain and found to have appendicular lump or admitted for interval appendectomy (with past history of conservatively treated appendicular lump) were taken for our study.

A detailed study of all the symptoms and signs along with relevant investigations was done. The line of management was decided according to the patient's condition. The special note was made whenever a conservative treatment was aborted and patient was taken for operative intervention. Then the final outcome was studied.

We collected all the data, laid down in tabulated manner and analyzed to have a conclusive remark. We found the following observations under different categories.

CHART 1: AGE WISE DISTRIBUTION OF PATIENTS

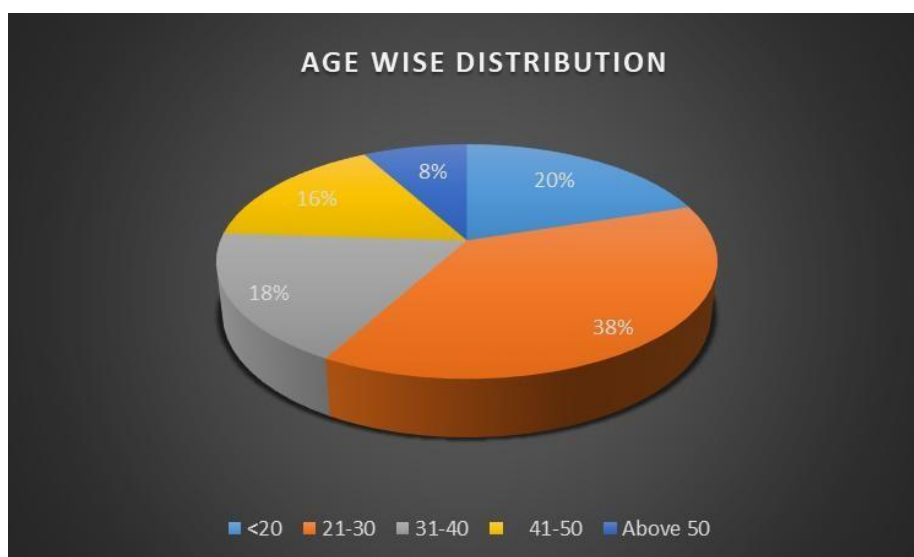


CHART: 1

In our study, 100 cases of appendicular mass who attended surgical department were selected over a period of two and half years. Age wise distribution showed that majority of patients (38%) were belonged to age group of 21-30 years, with mean age of 20 years. We found very low incidence during later years of life i.e. after 50 years of age.

CHART 2: SEX DISTRIBUTION OF PATIENTS

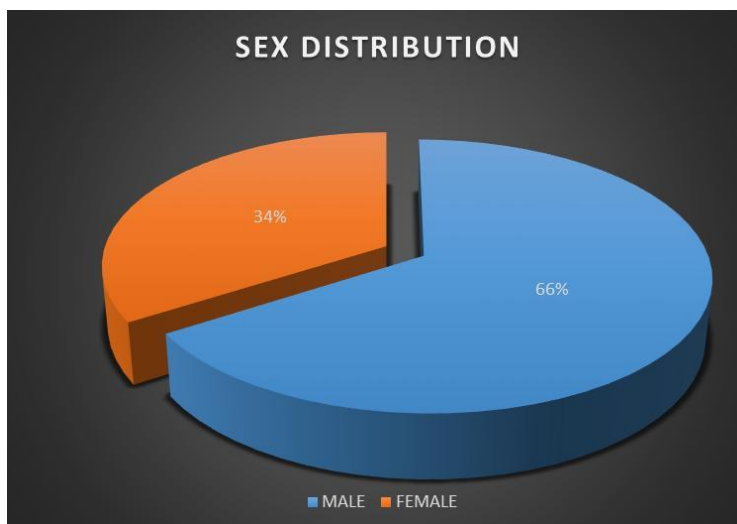
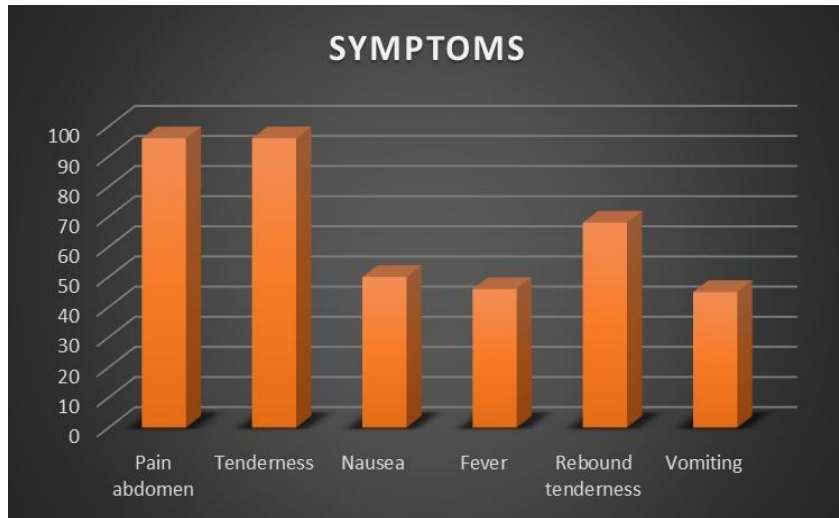


CHART: 2

In our study maximum numbers of patients were males (66) while females were only 34. Hence a significant male predominance was noted.

CHART 3: SYMPTOMS AND SIGNS (OTHER THAN LUMP)

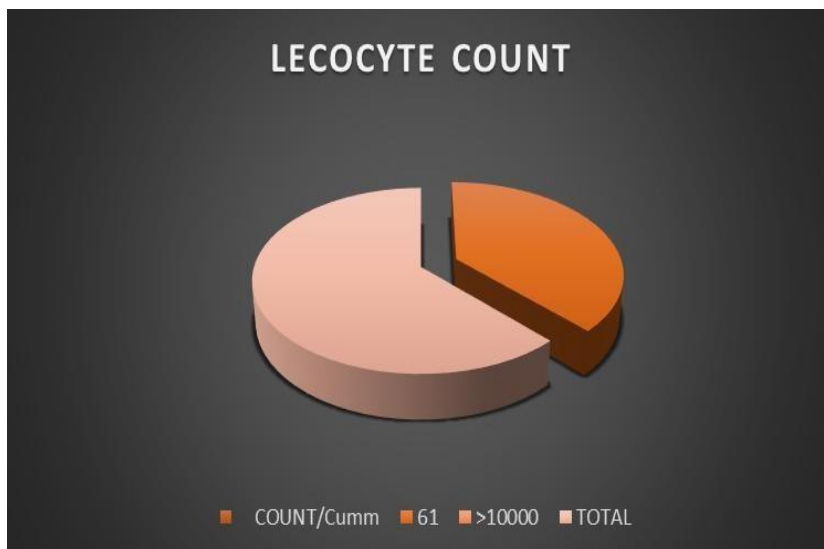
CHART: 3



In our study of 100 patients, all patients had symptoms as mentioned above. All patients (excluding those who were admitted for interval appendicectomy) had pain in abdomen as the presenting symptoms followed by nausea (50%), vomiting (45%) and fever (46%). This makes pain in right sided lower abdomen as the commonest symptom. As far as the signs are concerned, tenderness in right iliac fossa (96%), rebound tenderness (68%) and vomiting (45%) were found in this order.

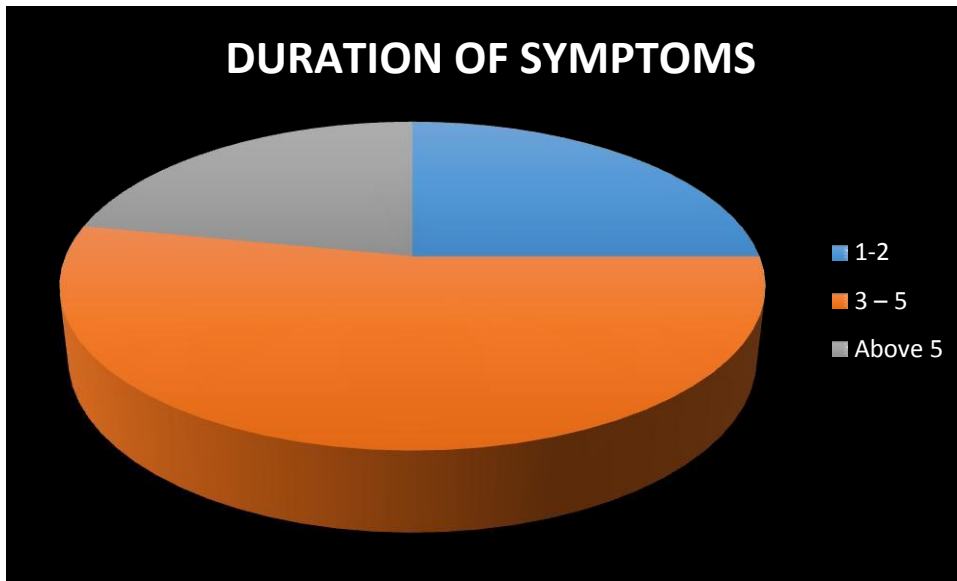
CHART 4: TOTAL LEUCOCYTE OF THE PATIENT

CHART: 4



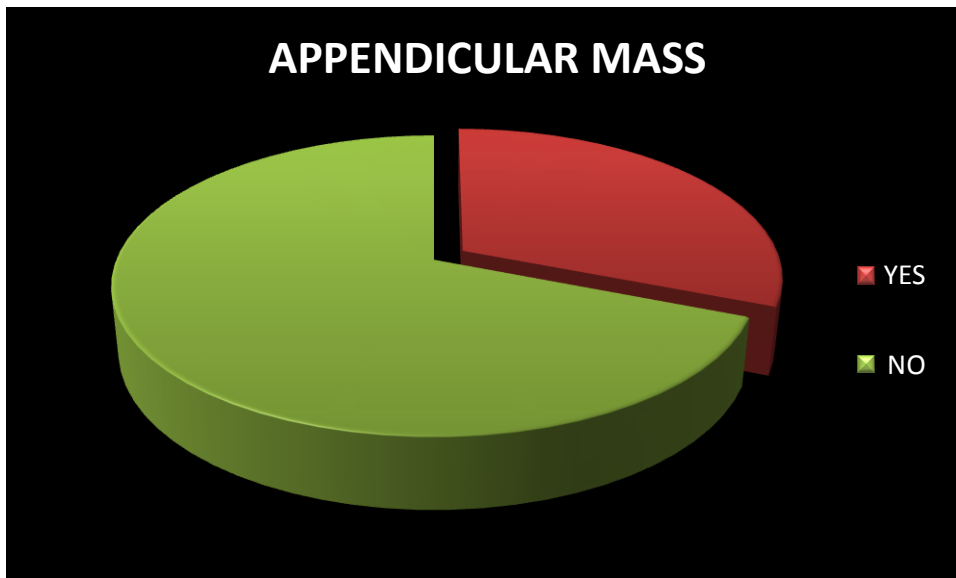
In our study of 100 cases, 61 % of patient are having total leucocyte count is more than 1000 and 39 % of patient are having 4000 – 10000

CHART 7: DURATION OF SYMPTOMS BEFORE APPEARANCE OF APPENDICULAR LUMP
CHART: 7



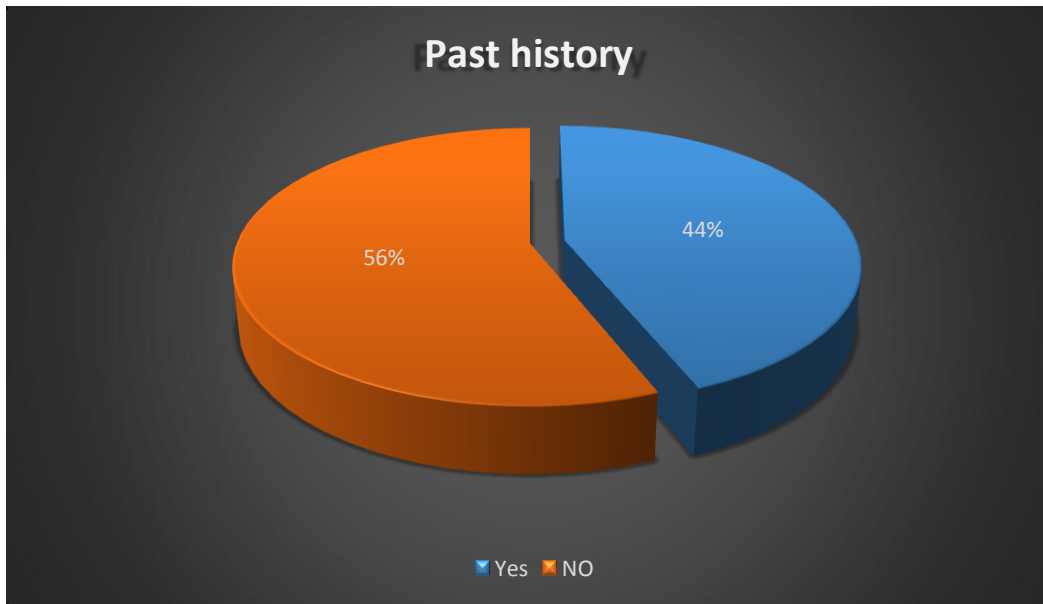
In our study of 100 population, most of the time required for the formation of appendicular lump is about to 3 to 6 days in 51(53%) patients followed by 1 to 2 days in 24 (25%) patients and above 6 days in 21 (26%) patients. Formation of lump is mainly dependent on the immune system of the body.

CHART 8: CLINICAL EXAMINATION OF APPENDICULAR MASS AT THE TIME OF PRESENTATION
CHART: 8



In our study of 100 cases, appendicular lump was clinically palpable in 31 cases (31%) at the time of presentation and in remaining 69% of patients appendicular lump was not clinically palpable at the of presentation. But later on distinct lump or vague lumpiness was palpable.

**CHART 9: SIGNIFICANCE OF SIMILAR COMPLAINTS IN THE PAST
CHART: 9**



In our study of 100 cases, 44 patients had history of similar complaints in past and out of these, 30 were diagnosed as appendicular lump. Now these 44 patients have recurrent symptoms and out of which 30 were operated and remaining were treated conservatively.

Total 56 patients were diagnosed as appendicular lump at the first presentation only and were treated conservatively by OCHSNER SHERREN regimen. Out of these, 54 patients were successfully treated conservatively and remaining 2 patients were aborted from conservative management as they were not clinically improving or worsening at times and hence treatment was converted to operative procedure.

CHART 10: MODE OF TREATMENT

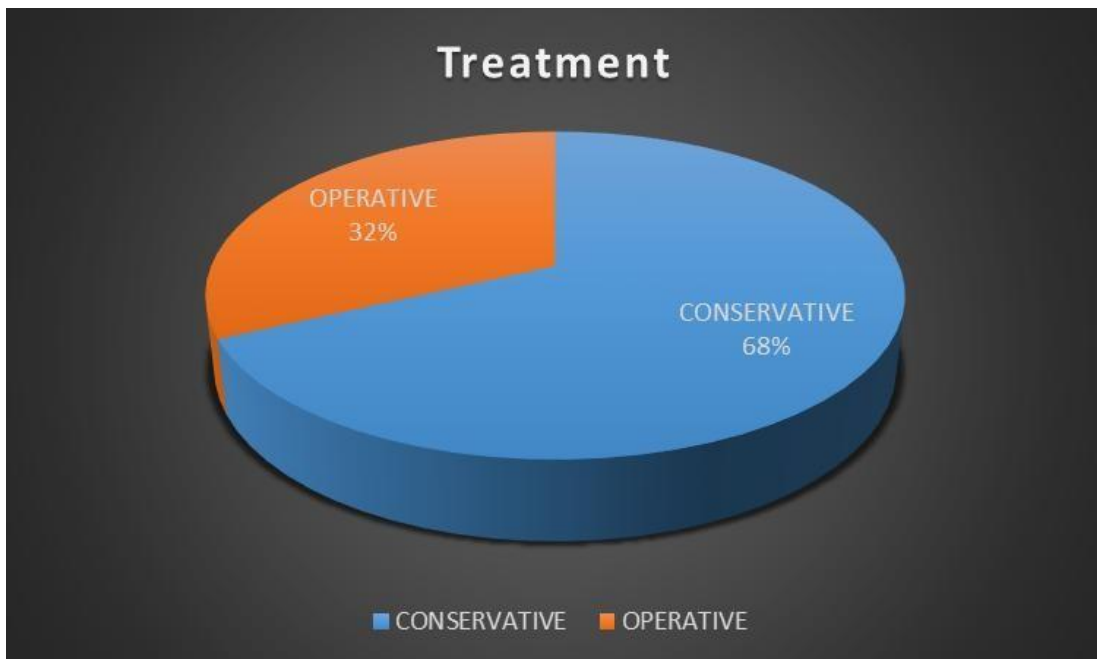


CHART: 10

In our study of 100 patients, 68 were treated conservatively by OCHSNER SHERREN regimen successfully and called for interval appendicectomy. Remaining 32 are operated either laparoscopic or standard appendicectomy. From these 32 patients, two patients were from the conservative treatment group and as they were not improving

clinically their line of management was changed to operative intervention.

CHART 11: OUTCOME OF SUCCESSFUL CONSERVATIVE TREATMENT

CHART 11 a):

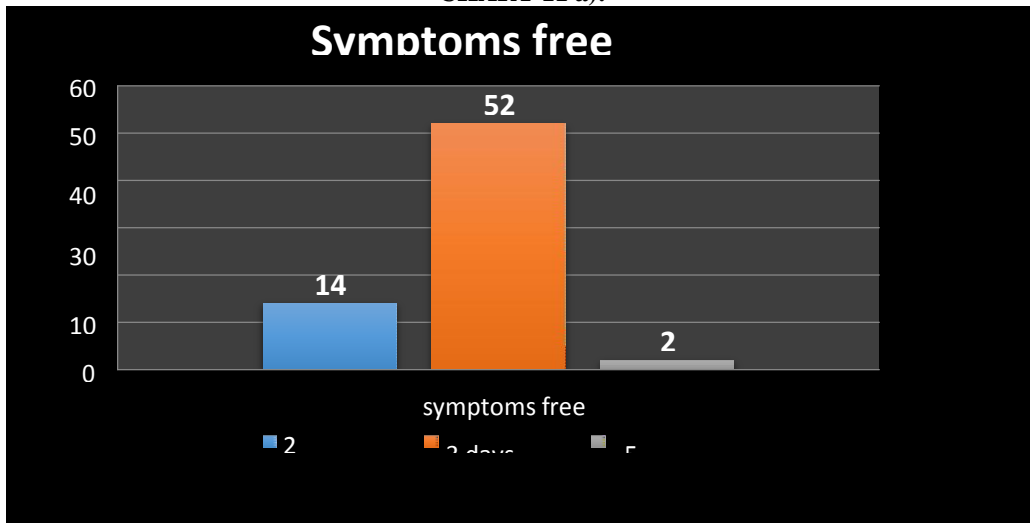


CHART 11 b):

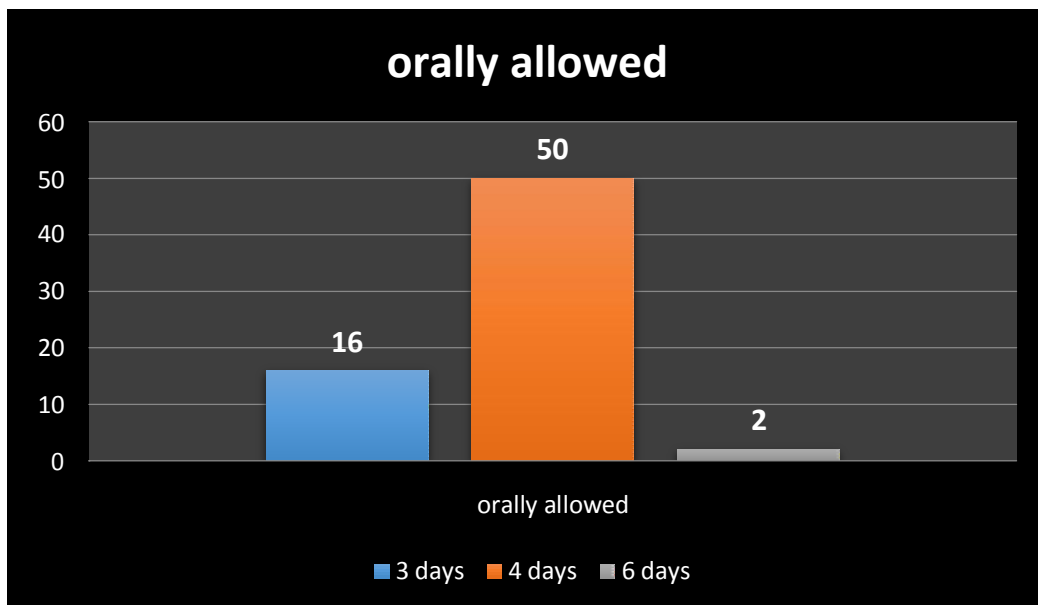


CHART 11 c):

In our study of 100 cases of appendicular lump, 68 patients were treated conservatively. Out of these most of the patients (52) were symptom free by the 3rd day and 14 patients by 2nd day.

Clinically the appendicular lump was palpable in 31 patients at the time of presentation and after starting treatment regression of lump was appreciable by 5 to 6 days in 22 patients and by 3 to 4 days in 8 patients.

One of our patients took almost a week for regression in the size of the lump.

Conservatively treated patients were allowed orally when they were symptomatically improved, they passed flatus and their bowel sounds were audible. Out of 68 conservatively treated patients, 50 patients were allowed to take orally after 4 days, 16 patients were allowed after 3 days and 2 patients were allowed after 6 days of nil by mouth. This suggests gradual improvement and success of the conservative management.

CHART 13: TYPE OF OPERATION

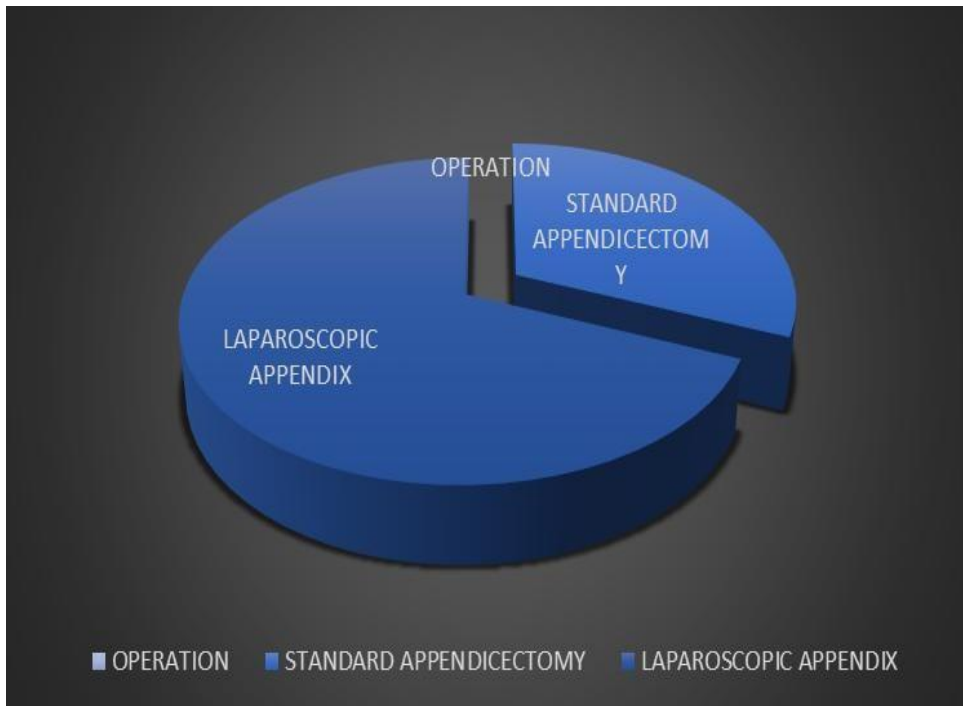
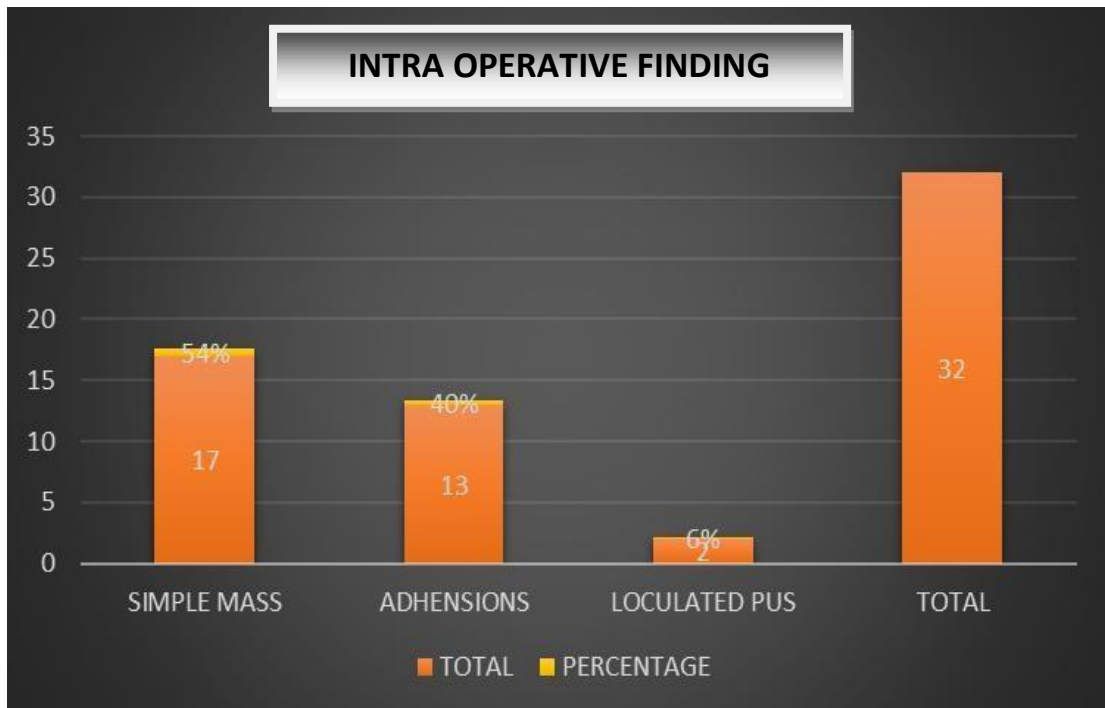


CHART: 13

From total 32 operated patients, 10 were operated by Standard Appendicectomy and 22 were by Laparoscopic method. This was dependent on patient's bodily habitus, patients clinical profile and surgeon's preference.

CHART 14: INTRA OPERATIVE FINDING

CHART: 14

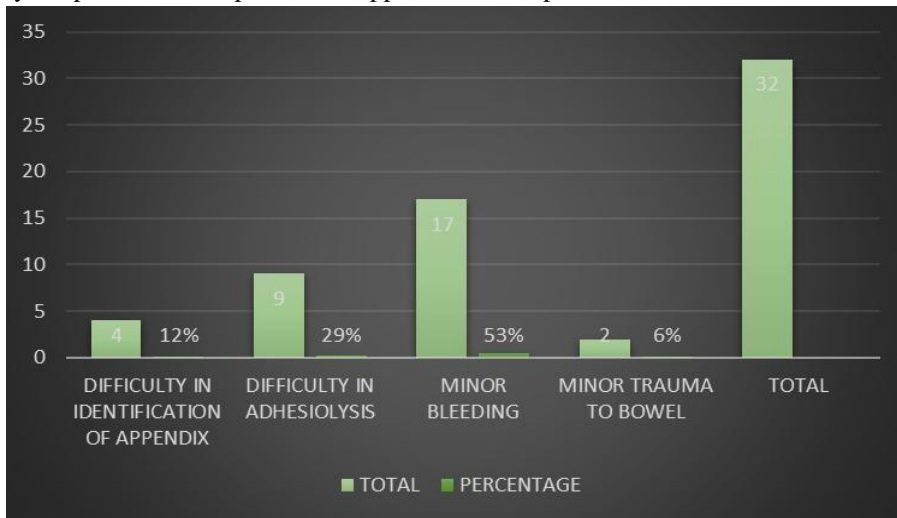


In our study of 100 patients, 32 were operated and the operative findings were, simple mass in 17(54%) of patients, adhensions with surrounding structures were in 13(40 %) of patients and loculated pus was in 2(6%) of patients. This makes the intra-abdominal adhesions as the commonest intra-operative finding.

CHART 15: INTRA OPERATIVE DIFFICULTY

CHART: 15

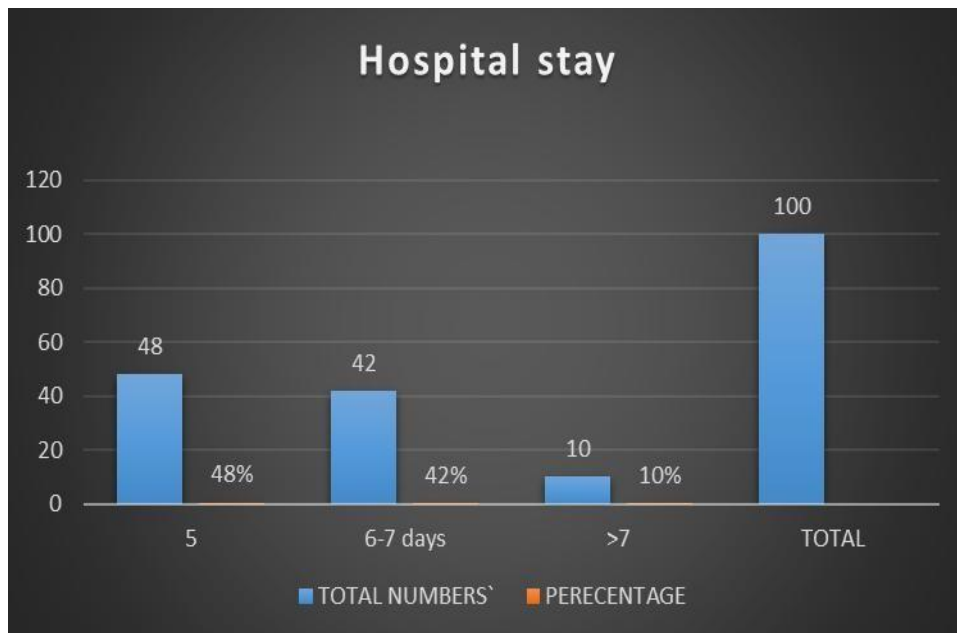
In our study, 32 patients were operated for appendicular lump. As far as the on table difficulties are concern,



minor bleeding was seen in 17(53%) patients. We thought that it might be due to the inflammation leading to increased vascularity around appendix and mesoappendix. Adhesiolysis was a bit difficult in 9(29%) patients as the clump was containing densely adherent bowel loops and omentum. And the same reason had tested the surgeon’s skill to identify the appendix in at least 4(12%) patients. Though statistically small but surgically bigger number was about minor trauma to the surrounding bowel loops in 2(6%) patients.

CHART 16: DURATION OF HOSPITAL STAY

CHART: 16



In our study of 100 cases, duration of hospital stay in most of patients was for 5 days 48% of patients and 42 % of patients needed 7 days of admission. So almost 90% of patients could be discharged within a week. Only 10 % of patients required to stay for more than 7 days. The mean was of 6.6 days.

III. Summary

We present a study of 100 cases of appendicular lump admitted to us in a tertiary level health care set up of Shree M. P. Shah Government Medical College and Guru Gobind Singh Government Hospital, Jamnagar, Gujarat.

We laid down the inclusion and exclusion criteria, made an elaborated surgical proforma, collected various data and analyzed all of them. At the completion of our study we could summarize our data as follows.

➤ In this study about 100 patients of appendicular lump were advocated conservative/surgical treatment. During the course, some of the patients under went conservative line of management while in some we need to operate.

➤ This study aims to follow up the patients diagnosed as appendicular mass & treated conservatively and to assess the outcome of conservative management and necessity of appendicectomy while aborting the conservative treatment.

➤ Mean age of presentation of appendicular mass was 20 yrs. ranging from 21 to 30 years.

➤ Appendicular mass was common in males, with incidence of 66 percentage.

➤ Among the all clinical features pain was the most common symptom. Most common location of pain was in right iliac fossa, followed by nausea, vomiting and fever. Tenderness and rebound tenderness were the common examination findings.

➤ In this study hematological investigations were assessed. Out of all, leucocyte count, hemoglobin and erythrocyte sedimentation rate were discussed here. We found significant alteration in all of them.

➤ Duration of symptoms before appearance of appendicular lump was about 3 to 6 days.

➤ At the time of presentation, clinically palpable of lump is accurate in 31 cases but later on distinct lump or vague lumpiness was palpable in other cases also.

➤ Past history of similar complaints was emphasized. In our study 44 patients had same complaints in the past and out of these 30 were diagnosed to have appendicular lump.

➤ In this study of 100 cases, 68 were treated conservatively and 32 were operated.

➤ Out of 68 conservatively treated, most of the patients were symptoms free by 3rd day and allowed orally by 4th day. Clinical regression of lump size was observed by 5 to 6 days.

➤ Laparoscopic appendicectomy was routinely followed procedure. It proved better than standard appendicectomy at times.

➤ The operative finding in majority (54%) of the patients was simple mass.

➤ The major per operative problem was difficulty in adhesiolysis in 29% of patients.

➤ The majority of patients had total duration of hospital stay for ≤ 7 days and the mean duration of hospital stay was 6.6 days.

IV. Conclusion

Though considered as vestigial organ, the inflammation of the appendix is very common surgical problem. The young and middle aged generation faces the brunt on majority of occasions. The presenting scene will range from catarrhal appendicitis to acute appendicitis to appendicular lump to appendicular abscess to appendicular perforation to recurrent appendicitis. Early diagnosis is always better. But a clinically non palpable or vague and sonographically appreciable lump will always lead to dilemma. Clinically remarkable lump makes initial decision a bit easier for the surgeon and that is to go for conservative treatment at the start.

When a patient is kept admitted and monitored thoroughly, a surgeon can decide whether to continue conservative treatment or to convert to operative intervention. But once you open the patient, the 'on table' situation may become dicey due to pus, adhesions and difficulty in identifying appendix and protecting other vital organs from damage.

Early operative intervention during the lump phase, can give patient an early relief from symptoms and an avoidance of second admission. But all of these are always under the hanging sword of on table difficulties, damage to underlying structures and postoperative complications.

With our data, we could conclude that for appendicular lump initial conservative management is still having a place and at times it can be considered wiser also. However advancements in instruments and help from imaging can make a surgeon bold enough to operate such patients. A larger study is always welcomed.

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