

## **Laparoscopic Appendicectomy in Appendicular Lump**

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### **ABSTRACT:**

**Background:** Appendectomy in presence of Appendicular Lump has long been considered a contraindication. But with the advent of Laparoscopic intervention and high technical skill it has now become possible to perform Appendectomy even in presence of appendicular lump. Authors' experience of laparoscopic appendectomy in presence of lump is shared in this article.

#### **Materials and methods**

50 patients of appendicular mass were operated in one year from November 2007 to October 2008. 35 patients were presented with palpable lump, in other 10 cases there were no palpable lump but ultrasonography demonstrated presence of lump, in rest 5 cases lump was detected during laparoscopy only. Laparoscopy was done in all cases and appendicectomy was performed. Conversion was done in difficult situations.

#### **Result**

50 patients of appendicular lump underwent laparoscopy for lap appendicectomy. Duration of pain varies from 3 to 7 days before hospitalisation with an average duration of 5 days. Appendicectomy was performed in all the cases laparoscopically except in one case (2%) which was converted to open appendicectomy. Mean hospital stay was 2.5 days. Duration of operation depends upon the condition of phlegmon and we found operating time of 60 to 90 min in different cases. Post operative period was uneventful. Average hospital stay after surgery varies from 2 to 3 days.

#### **Conclusion**

Laparoscopic appendicectomy can be carried out as a safe and simple procedure in presence of appendicular lump without any added risk.

**KEY WORDS:** Laparoscopic Appendicectomy, Appendicular Lump

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## **I. INTRODUCTION**

The surgical management of acute appendicitis presenting lately with an appendicular mass remains controversial. The most important contraindication of emergency appendicectomy has been considered to be appendicular lump since antiquity. It is believed that any attempt to remove appendix from a lump has been an invariably cause inadvertent bleeding, and injury to caecum and terminal ileum. Hence a principle of conservative treatment followed by interval appendicectomy after disappearance of lump is a standard principle since a long time. The aim was to determine the safety and possibility of early laparoscopic appendectomy in patients presenting lately with appendicular mass. With the revolution of laparoscopic instrumentation and technical skill it is possible to remove an inflamed appendix in presence of mass successfully.

## **II. MATERIALS AND METHODS**

We prospectively studied 50 patients presented to us with acute appendicitis with appendicular mass in last one year from November 2007 to October 2008. 35 patients were presented with palpable lump, in other 10 cases there were no palpable lump but ultrasonography demonstrated presence of a lump, in rest of the 5 cases lump was detected during laparoscopy only. Preoperative work up included a complete clinical examination, complete haemogram, blood urea, serum creatinine, liver function test, electrolytes and ultrasonography. In selected patients CECT were performed to confirm the diagnosis of complicated appendicitis with formation of a lump. Lump subsequently found to be of other causes i.e tuberculosis, chronic disease, tumour was excluded from the series. Laparoscopy was done in all the cases and appendicectomy was performed. Conversion was done in difficult situations.

### III. RESULTS AND OBSERVATION

50 patients of appendicular lump underwent laparoscopy for lap appendicectomy. 38(76%) were male and 12(24%) were female. The mean age group was 28 years. Male female ratio was 2:1. In 45(90%) of cases lump was detected preoperatively. Out of these 45 cases, in 10(20%) cases there were no clinically detectable lump except rt. Iliac fossa rigidity but lump detected by ultrasonography. Rest 5(10%) did not show any lump in ultrasonography but at laparoscopy the phlegmon was detected with clumping of terminal ilium and omentum with inflamed appendix embedded. Duration of pain varied from 3 to 7 days before hospitalisation with an average duration of 5 days. Laparoscopy was done in all the cases with three port technique. 10 mm umbilical port, 10 mm left iliac fossa port and 5 mm rt. iliac fossa port. Appendicectomy was performed in all the cases laparoscopically except in one case (2%) which was converted to open appendicectomy because of extensive adhesion with the caecal wall. Post operative period was uneventful. Average hospital stay after surgery varied from 2 to 3 days. Mean hospital stay was 2.5 days. Post operative wound infection and abscess was nil. 4% patient complained of pain in umbilical port site.

### IV. DISCUSSION

Although appendix mass occurs in 10% patients with acute appendicitis<sup>12</sup>, its surgical management remains controversial with two schools of thought; early surgical intervention vs non operative management with or without interval appendicectomy<sup>1</sup>. It was thought that operative management of patients with appendix masses seems to be associated with high risk of post operative complications and the risk of more extensive surgical procedure. Hence, if possible a conservative approach should be advocated once a lump is detected<sup>3</sup>. Though the traditional management of appendicular mass has been an initial conservative approach followed by interval appendicectomy, more recently, the necessity of interval appendicectomy has been questioned by a growing amount of evidence in surgical literature<sup>2</sup>. Early laparoscopic appendicectomy during index admission for appendicular mass is safe and feasible and obviates the need of second hospital admission and avoids misdiagnosis with an average operating time of 45 min<sup>4</sup> and a mean hospital stay of 2 days<sup>4</sup>. The incidence of intra abdominal abscess in lap appendicectomy is 14%<sup>8</sup>, wound infection 8.8%<sup>9</sup>, mean hospital stay 2.6 days<sup>9</sup> to 4.22 days<sup>10</sup> for appendicular lump in different series. Operating time required for lap appendicectomy in presence of lump is slightly more and reported by different authors varies from (45 min)<sup>5</sup>.

The overall complication rate in lap appendicectomy is of 15% as compared to 31.8% in open appendicectomy<sup>6</sup> in complicated appendicitis and the incidence of conversion to open surgery varies from 2.3%<sup>11</sup>, 6%<sup>6</sup> and 0.6%<sup>7</sup> in different series. In our series we have found an operating time of 60 to 90 min with an average of 75 min. Duration of operation depends upon the condition of phlegmon. If adhesion between right iliac fossa structures are firm more slow dissection is required to avoid inadvertent caecal injury. In early lump dissection it is easier because there is fibrinous adhesion which can be separated by blunt dissection. In the post operative period patients compliance was good. There was 0% mortality, 0% wound infection but there was 8% umbilical port site pain with mean hospital stay of 2.5 days. Conversion to open surgery was rarely required and we have noted 2% conversion to open surgery. Our experience with lap appendicectomy in appendicular lump is very limited, but as the result says lap appendicectomy is a safe and acceptable procedure for appendicular lump.

### V. CONCLUSION

Laparoscopic appendicectomy can be carried out as a safe and simple procedure in presence of appendicular lump without any added risk and it is associated with increased clinical comfort in terms of fewer wound infection, faster recovery, early return to work and improved cosmesis.

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