Port-site tuberculosis: A rare complication following laparoscopic cholecystectomy

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ABSTRACT

A rare complication of port-site tuberculosis following laparoscopic cholecystectomy is reported. In this case, the source of infection was most probably the laparoscope and its accessories. Thus, proper sterilization of the laparoscope and instruments is of utmost importance in preventing infectious complications and ideally, autoclaving should be used for this purpose.

Key Words: Tuberculosis, port-site infection, laparoscopy, cholecystectomy

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INTRODUCTION

Laparoscopic cholecystectomy has become one of the most commonly performed operations, its complications are also increasing. Port-site tuberculosis following laparoscopic cholecystectomy is rare.[1] We report a case of port-site tuberculosis following laparoscopic cholecystectomy.

CASE REPORT

A 55-year-old-female patient who underwent laparoscopic cholecystectomy for chronic calculus cholecystitis, presented with multiple discharging sinuses at the port-site two months after surgery. General physical examination was normal. Local examination revealed multiple sinuses, discharging purulent material at the secondary port-site (5-mm port) in the right hypochondrium. There was pigmentation and induration at that site (Figure 1). Hematological and biochemical investigations did not reveal any abnormality. Abdominal ultrasonography and chest X-ray were normal. Gram’s staining, culture and sensitivity from the wound swab and the swab from the laparoscope instruments were sterile.

Curettage of the sinuses and drainage of abscess was done under local anaesthesia. A course of Ciprofloxacin was given, but there was no response to the treatment. After one month, local exploration and excision of the sinuses with local flap coverage was done under general anaesthesia. The

Figure 1: Photograph showing multiple sinuses at the port-site
postoperative period was uneventful. The wound healed well. Histopathological examination of the excised specimen revealed caseation necrosis with Langhan’s giant cells suggestive of tubercular granuloma (Figure 2). The patient was put on antitubercular treatment for nine months. After one year of follow-up she is asymptomatic.

**DISCUSSION**

Port-site tuberculosis following laparoscopic cholecystectomy is rare. The source of infection is usually a nosocomial with the laparoscopic instrument or its accessories being most frequent. Ramesh et al reported eight patients with biopsy-proven tuberculosis at the port site unassociated with other clinical features of tuberculosis. Three of the eight patients had positive culture for Mycobacterium tuberculosis. Jagadish et al reported one such case. Bhandarkar et al reported a 14-year-old girl who developed port-site infection with Mycobacterium chelonii following laparoscopic appendicectomy. She was treated with local exploration and excision of sinuses, followed by antitubercular treatment for six months. Seith et al reported a rare case of intraabdominal and abdominal wall abscesses of tubercular aetiology associated with dropped stones following laparoscopic cholecystectomy. Eight case reports have been published with tuberculosis arising at the site of physical injury. Shindholimath et al studied factors influencing wound infection following laparoscopic cholecystectomy and suggested that as it may not be possible to diagnose which patients have bactibilia by routine investigations, it is advisable to use prophylactic antibiotics to reduce the incidence of wound infection.

In view of the explosive increase in laparoscopic surgery, there is concern about the effectiveness of the sterilization of reusable laparoscopic instruments by immersion in 2% gluteraldehyde. There is conflicting information in the literature regarding the effectiveness of a 20-minute instrument soak in 2% gluteraldehyde to clear Mycobacterium tuberculosis. In the light of the preceding information, the current practice of gluteraldehyde disinfection for reusable laparoscope needs to be re-examined. Thus proper sterilization of the laparoscope and instruments is of utmost importance in preventing infectious complications and ideally, autoclaving should be used for this purpose.

To conclude, in our case it was the secondary port-site (5 mm) in the right hypochondrium, through which the drain tube was inserted, that was the site of tuberculous infection. In this case the source of infection was most probably the laparoscope and its accessories. Hence it is recommended to take the utmost care and follow the proper technique of sterilization of laparoscopic instruments.

**REFERENCES**