Port-site tuberculosis following laparoscopic cholecystectomy: a case report and review of literature

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ABSTRACT

A rare case of port-site tuberculosis (first from the UK) following laparoscopic cholecystectomy is reported. This case is unique in the sense, it presented as parietal wall lump instead of a nonhealing port site. In this case, probably the source of infection was reusable trocar laparoscope’s and the mode of infection appears to be direct inoculation of bacteria at port site from trocar. Proper sterilization of reusable instruments or laparascope is mandatory to prevent such complications. Autoclaving is the ideal method of sterilization.

Key words: Laparoscopic cholecystectomy, Port-site tuberculosis

INTRODUCTION

Port-site tuberculosis following laparoscopic surgery is extremely rare. Review of literature have revealed only nine cases so far. All these cases, presented as nonhealing port site. These cases were only from the Indian subcontinent. We report one such case, which probably represents first case from UK and unique in presentation as parietal wall swelling.

CASE REPORT

A 45-year-old woman originally from Somalia, resident in the UK for 20 years, who underwent laparoscopic cholecystectomy for gallstone disease 5 years ago at North Middlesex University Hospital, London presented in the surgical out patient clinic with 6-month history of pain in the right upper abdomen. Pain was moderate to severe in intensity, nonradiating, continuous, without any associated bowel, or urinary symptoms. There was no history of chronic cough, fever or loss of appetite, jaundice, or tuberculosis. Pain was mainly aggravated by standing or coughing.

On examination, there was a 6 x 6 cm, globular, firm, nontender parietal wall swelling in the right hypochondrium at the site of midclavicular port. Rest of the examination was essentially normal. Operative record revealed that reusable trochars were used for laparoscopic cholecystectomy and method of sterilization was autoclaving. X-ray chest done at the time of laparoscopic cholecystectomy was normal.

On investigation, all biochemical parameters were within normal limits except for raised ESR. X-ray chest was normal. Ultra sound examination of the abdomen was essentially normal. Computer tomography (CT) scan of the abdomen revealed a hyperdense collection in the abdominal wall between the muscle and the peritoneum in the right upper abdomen [Figure 1]. Computer tomography scan-guided aspiration of that collection revealed cheesy material. Microscopic examination of the aspirated material showed chronic granulomatous inflammatory material with Langhans type of giant cells, suggestive of tuberculosis. Culture of the aspirated material did not reveal any microor-
ganism. The patient was started on antitubercular treatment (isoniazid, rifampicin, and ethambutol and pyrazinamide for 2 months followed by isoniazid rifampicin for another 2 months), and was followed up regularly in the out patient clinic. After 6 months, the swelling subsided completely and the patient became asymptomatic.

DISCUSSION

So far only nine cases of port-site tuberculosis have been reported. All of these cases presented with non-healing port sites. This case is unique in that it presented as an abdominal wall swelling, and the source of infection is likely to be reusable trocar or laparoscope that was not adequately sterilized. Mechanism of infection appears to be direct inoculation of organism from trocar into wound.

Autoclaving is the best method for sterilization of reusable instruments. Instruments should be pre-cleaned properly before sterilization or disinfection. Instruments should be dismantled and all blood clots should be removed especially from joints before sterilization. For disinfect ion of laparoscope, soak for 20 min in 2% alkaline glutaraldehyde; however, this is not adequate and this practice should be discouraged. Recently, newer agents like per-acetic acid, orthophaldehyde (cidex-OPA), surfacine, and super oxidized water have been reintroduced, but there are no well-documented trials to prove their efficacy.

In conclusion, autoclaving is the best method of sterilization for laparoscopic instruments. All parts of instruments should be dismantled and cleaned thoroughly before sterilization to remove clotted blood. Current practice of immersing instruments for 20 min in 2% alkaline glutaraldehyde, prevalent in many parts of world, should be discouraged to avoid such incidents of port-site tuberculosis.

REFERENCES