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PORT SITE TUBERCULOSIS FOLLOWING LAPAROSCOPIC CHOLECYSTECTOMY PRESENTING WITH PERSISTENT DISCHARGE

Surgery

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ABSTRACT

BACKGROUND: Laparoscopic surgery (LS) has given the surgeon the power of not only treating diseases surgically but also limiting surgical invasiveness. LS, however, has its package of unique complications. One such complication, which is preventable although, is the port site infection (PSI). The possible causes of its development include improper sterilization of instruments, use of tap water containing resistant atypical mycobacteria to clean these instruments before immersion into glutaraldehyde solution; and seeding at the port site due to gall bladder TB.

OBJECTIVES: An attempt to make surgeons aware about the complications which occur due to improper sterilisation of laparoscopic instruments ending into increased morbidity of patients.

METHODS: We are presenting two cases of port site infections who presented with discharging sinus from epigastric port site scar after laparoscopic cholecystectomy. In one of them whole sinus tract was excised and wound was primarily closed.

RESULTS: We report the development of a draining epigastric and umbilical sinus tract following laparoscopic cholecystectomy. Despite aggressive local treatment, there was no improvement in the condition of the epigastric port site, necessitating wide excision of the sinus tract of epigastric port site. Although subcutaneous abscesses from gallstone fragments have been reported in our institution, to our knowledge this is the first report in which the subsequent development of a sinus tract required a second operative procedure for resolution.

CONCLUSION: Complications can occur even in the best of hands and it is vital that these are recognised promptly and immediately addressed.

KEYWORDS

Port Site, Tuberculosis, Laparoscopic Cholecystectomy

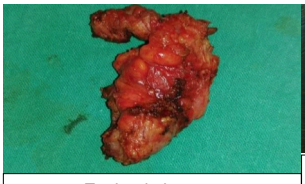
INTRODUCTION:

- Laparoscopic cholecystectomy has become the gold standard treatment for symptomatic gall stones.
- Surgical site infection at port sites following lap-cholecystectomy is not uncommon now a days. [1]However, port site tuberculosis following same is a rare complication.[2]
- Improper sterilisation of instruments is one of the commonest exogenous causes of port site infection following laparoscopic procedure[5].
- Here, we are reporting two cases of post laparoscopic cholecystectomy port site infection with persistent discharging sinus. Two female who underwent laparoscopic cholecystectomy outside our hospital and developed persistent discharging sinus at port site.

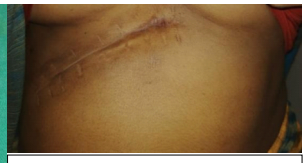
In one case the excised sinus tract and in the other unhealthy granulation tissue from wound margin reveals granulomatous infection on histopathology report. Both of them were put on anti-tubercular therapy and both had no recurrences after 3 months follow-up.

CASE REPORT 1:

- A 32 year old female with a history of laparoscopic cholecystectomy 5 months back presented with complaints of purulent discharge from her epigastric port site wound.
- Following lap-cholecystectomy, her epigastric port site wound didn't heal even after 2 months and there she developed a discharging sinus. On examination, a small opening (1cm*1.5 cm) with purulent discharge was present. Margins undermined with unhealthy granulation tissue without induration or erythema.
- Wound debridement was done, pus sent for gram stain & pyogenic culture sensitivity. She was followed up on empirical antibiotics as culture was negative.
- After 1 month she revisited with same complain. Again debridement was done and sample sent for gram stain, Z-N stain, pyogenic culture, and CBNAAT and BACTEC culture. All came out negative. Mantoux done with 2TU PPD was negative.
- Ultrasonography of abdominal wall showed a sinus tract with mild collection in anterior abdominal wall without any communication to peritoneal cavity. Sinogram showed 4 cm sinus tract extending towards right hypochondrium without any communication to peritoneal cavity.
- There was no history of evening rise of temperature, weight loss, and loss of appetite. Patient was non diabetic, non-hypertensive. General survey otherwise was normal so was other systemic examinations.
- After proper pre-operative work-up excision of sinus tract was done with right subcostal incision under general anaesthesia. Sample sent for histopathological examination. Post-operative period was again complicated by wound infection with pus mixed discharge. Though frequent dressings were done but there was no significant improvement.
- Finally the HPE report of excised tract showed chronic granulomatous inflammation with central caseation.
- Antitubercular drug was started according to body weight under RNTCP.
- Wound then started to heal with ATD and regular dressing. She had no recurrence on follow up of three months.



Excised sinus tract



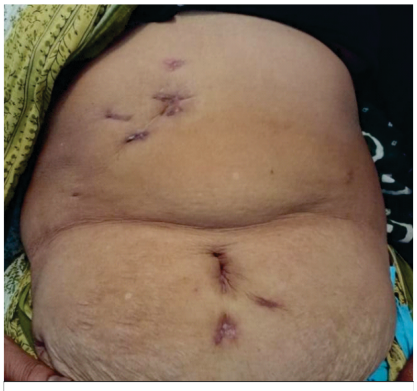
Healthy epigastric wound after 3 months of ATD

CASE REPORT 2:

- A 45 year old female who underwent laparoscopic cholecystectomy 6 months back in a private hospital presented with persistent discharge from her umbilical and epigastric port site.
- As per operative note, her GB was taken out from epigastric port and immediate post-operative period was uneventful.
- All relevant investigations including culture from the lesion (gram stain, pyogenic culture, Z-N stain, CBNAAT) were performed but no definitive cause could be detected.

The wound was 3cm*2cm and the margins were undermined with scanty serosanguinous discharge and unhealthy granulation tissue. The granulation tissue was sent for histopathological exam which revealed granulomatous lesion consistent with tuberculosis. The patient was thoroughly investigated to find out any TB focus. No focus

was found. Mantoux test with 2TU PPD was negative. The patient was provided with standard anti TB chemotherapy and the local wound was managed with frequent dressing. The patient was completely cured off and was discharged in appropriate time.



Port site wound after 3 months of ATD

DISCUSSION:

Laparoscopic cholecystectomy has some specific risks related to laparoscopy in addition to those related with cholecystectomy. Port-site Mycobacterial infection generally occurs from endogenous, exogenous & haematogenous sources.

As our patients had no history suggestive of active tuberculosis, possibility of transmission was more via exogenous route. She may have got the infection via contaminated laparoscope sterilized improperly.

However, it is widely accepted that 2% glutaraldehyde used as standard agent of reprocessing of laparoscopic instruments achieves high level of[3] disinfection but not sterilisation. Guidelines for reprocessing oflaparoscopic instrument s have not been standardized till date.

The Minimal Access Therapy Documentation Working Group has recommended careful pre-cleaning and only 10 minutes soak in glutaraldehyde for lap instruments with longer time if tuberculosis[4] suspected.

CONCLUSION:

Mycobacterial infection at port site undermines the benefits of laparoscopic procedures. Current practices of immersing laparoscopic instruments should be reconsidered. These instruments should ideally be sterilized by autoclaving as this may be the only method of preventing such cases. Such cases are managed by careful excision of the sinus tract followed by Anti Tubercular Therapy and controlled by proper sterilization.

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