Print ISSN: 2321-6379
Online ISSN: 2321-595X

Case Report

Laparoscopic Management of a Cholecystocutaneous Fistula: A Rare Case

R Murugesan[1], S Muthuraj[2], P Karthikeyan[2], K Ashok Kumar[3], Shivanshu Misra[4]

[1]Professor and HOD, Department of Surgery, Government Theni Medical College, Theni, Tamil Nadu, India, [2]Senior Assistant Professor, Department of Surgery, Government Theni Medical College, Theni, Tamil Nadu, India, [3]Assistant Professor, Department of Surgery, Government Theni Medical College, Theni, Tamil Nadu, India, [4]Consultant Gastrosurgeon, Department of Surgery, Shivani Hospital and IVF Center, Kanpur, Uttar Pradesh, India

Abstract

Introduction: Cases of cholecystocutaneous fistulas are rare as a result of rapid diagnosis and treatment. We present a case of cholecystocutaneous fistula developed after removal of drain placed after lap cholecystostomy for the treatment of acute calculus cholecystitis.

Case Presentation: A 37-year-old female presented with abdominal pain, purulent discharge, and passage of stones from the drain fixed-site after 6 years of cholecystostomy. A computerized tomography scan showed a biliary fistula. Laparoscopic cholecystectomy was successfully carried out.

Conclusion: Laparoscopic cholecystectomy is attempted in cholecystocutaneous fistula and it is a safe and feasible technique to manage cholecystocutaneous fistulas.

Key words: Cholecystitis, Cholecystocutaneous fistula, Laparoscopic cholecystectomy, Percutaneous drainage

INTRODUCTION

We report this case for many reasons. First, there is very less incidence of the disease. Second, the long history of this patient before diagnosis also makes this case very interesting; and lastly we wanted to share our surgical experience with colleagues. Cholecystocutaneous fistulas are rare complication following cholecystitis. Fewer than 20 cases have been reported in the published literature over the past 50 years.[1] Fistulas are more commonly associated with Gallstones, although it occurs with acalculous cholecystitis and carcinoma gallbladder.

CASE REPORT

A 37-year-old female was admitted with complaints of abdominal pain and vomiting. She was diagnosed to have acute calculus cholecystitis, and laparoscopic cholecystectomy was attempted. However, due to dense adhesions with surrounding structures, cholecystostomy was done at a private hospital in Kerala, India. The drain was kept and bile was drained. Drain removed after 15 days. Post-operative period was uneventful and the patient discharged. Follow-up ultrasound after 6 months revealed stone in gallbladder with complaints of pus discharge and passage of stones from the previous drain fixed-site in September 2018 for which Incision and drainage were done in that hospital. Then, she again presented with abdominal pain and passage of stones [Figure 1] from the same site in November 2018 and referred to our hospital.

Treatment at our hospital CECT abdomen was taken and it showed cholecystocutaneous fistula with cholelithiasis [Figure 2]. Laparoscopic cholecystectomy with excision of fistulas tract was planned and operated on 28th November, 2018. Per-operatively, dense adhesions noted. Fundus of gallbladder found adhesive to the anterior abdominal wall. Calot's triangle dissected. Lap cholecystectomy done after ligating cystic duct and cystic artery with clip. Gallbladder dissected out from the liver bed. Fistulous tract seen from fundus inside the muscle with a defect of size 1cm. Tract extends

Access this article online

www.ijss-sn.com

Month of Submission : 06-2020
Month of Peer Review : 07-2020
Month of Acceptance : 07-2020
Month of Publishing : 08-2020

Corresponding Author: Dr. Shivanshu Misra, Shivani Hospital and IVF Center, Kanpur, Uttar Pradesh, India.

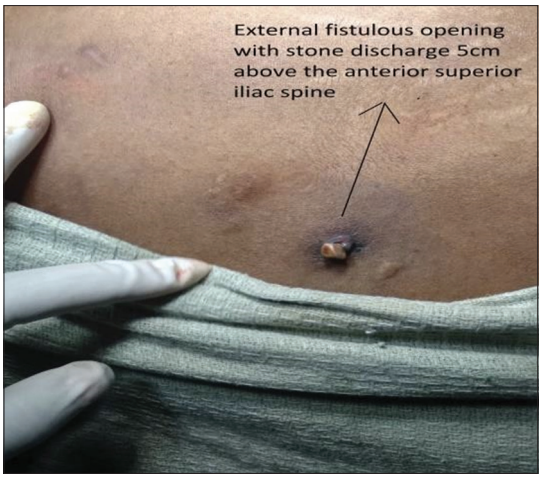

Figure 1: Patient complains of passing stones

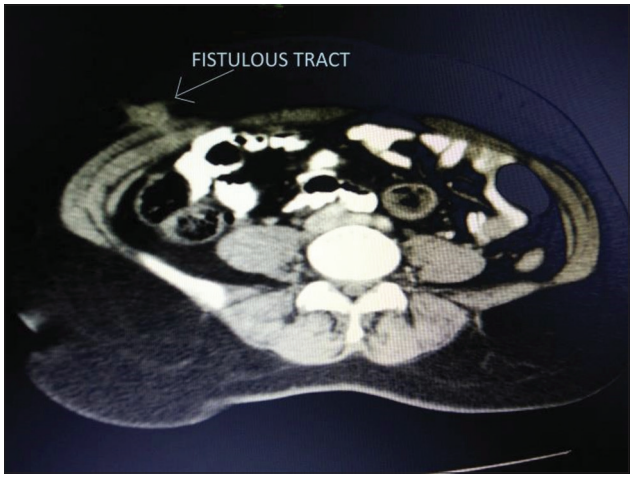

Figure 2: CT scan of fistulous tract

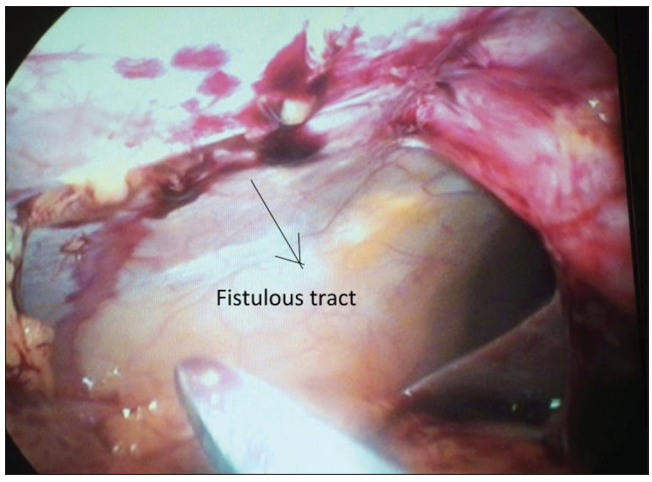

Figure 3: Fistulous track

up to skin [Figures 3 and 4]. Fistulous tract dissected laparoscopically till the skin. The external opening seen 5 cm above the anterior superior iliac spine. Stone extracted from external opening. Fistulous tract excised

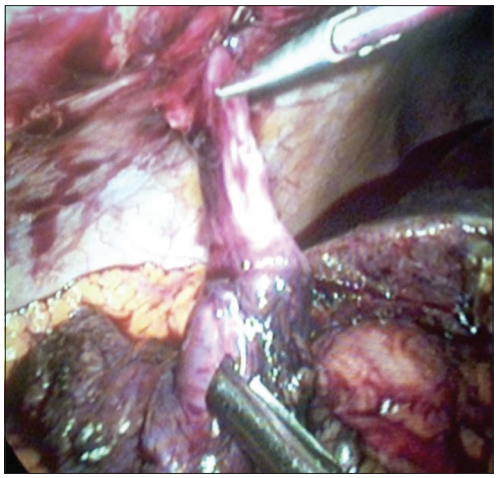

Figure 4: Dissection of the track

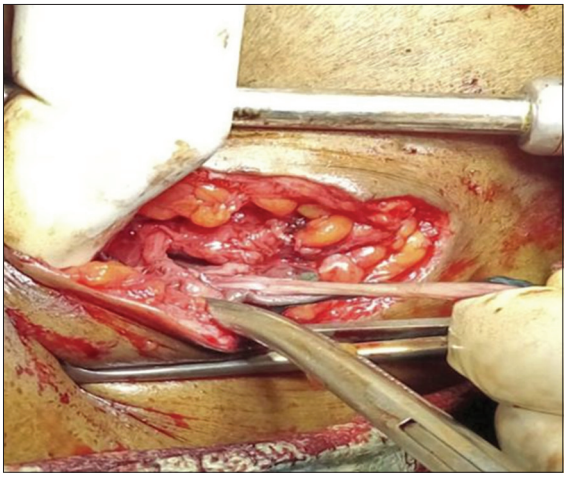

Figure 5: Fistulous track removed anteriorly along with gallbladder through skin incision

into externally from skin [Figures 5]. Postoperative period was uneventful.

DISCUSSION

Since the beginning of the 20th century, the number of diagnosed cases of cholecystocutaneous fistula has declined dramatically. In 1890, Courvoisier reported 499 cases of perforated gallbladders; of these, 169 resulted in the formation of external fistulas through the abdominal wall.[2] In contrast, between 1900 and 1975, only 31 cases were reported in the literature. Fewer than 20 cases have been reported in the published literature over the past 50 years.[1]

We present a case of a 37-year-old female who was diagnosed with a cholecystocutaneous fistula developed after 6 years following removal of percutaneous drain fixed during laparoscopic cholecystostomy to treat her acute cholecystitis. Cholecystectomy with excision of fistula tract is the definitive treatment for this condition.[3] Laparoscopic

approach is another option whenever feasible.[4] Post-operative histopathological examination of gall bladder with fistulous tract shows chronic calculus cholecystitis with fibrosis and fistulous tract shows the structure of the skin and fibrous tract lined by granulation tissue. Although fistula formation is a rare complication following cholecystitis, it should be kept in mind as a differential diagnosis for any fistulous tract in the right abdominal wall.[5]

CONCLUSION

Cholecystocutaneous fistulas are rare complication following cholecystitis. Fewer than 20 cases have been reported in the published literature over the past 50 years.[1] Fistulas are more commonly associated with gallstones, although it occurs with acalculous cholecystitis and carcinoma gallbladder. Laparoscopic cholecystectomy is attempted in cholecystocutaneous fistula and it is a safe and feasible technique to manage cholecystocutaneous fistulas.

AUTHORS' CONTRIBUTIONS

- First author: Prof. R. Murugesan Ms, M.S Professor and HOD, Government Theni Medical College, drmurugesanms@gmail.com
- Author 2 Dr. S. Muthuraj Ms, M.S., Senior Asst Professor, Government Theni Medical College drsumura@gmail.com
- Author 3 Dr. P. Karthikeyan Ms, M.S., Senior Asst Professor, Government Theni Medical College drkarthims1012@gmail.com
- Author 4. Dr. K. Ashok Kumar Ms, M.S., Asst Professor, Government Theni Medical College, drashok1986@gmail.com
- Author 5 and Corresponding Author-Dr Shivanshu Misra, Consultant Gastrosurgeon, Shivani Hospital and IVF) email shivanshu_medico@rediffmail.com

- All authors have equally contributed to collecting the data and preparing this article and are in agreement for publishing it.

ACKNOWLEDGMENTS

The authors would like to thank the hospital surgical and pathology department as well as the patient for all their help in preparing this article.

REFERENCES

1. Almotlaq AM. Laparoscopic management of a cholecystocutaneous fistula: A case report. J Minim Invasive Surg Sci 2015;4:e32036.
2. Henry CL, Ort TG. Spontaneous external biliary fistulas. Surgery 1949;26:641-6.
3. Birch BR, Cox SJ. Spontaneous external biliary fistula uncomplicated by gallstones. Postgrad Med J 1991;67:391-2.
4. Malik AH, Nadeem M, Ockrim J. Complete laparoscopic management of cholecystocutaneous fistula. Ulster Med J 2007;76:166-7.
5. Vasanth A, Siddiqui A, O'Donnell K. Spontaneous cholecystocutaneous fistula. South Med J 2004;97:183-5.

How to cite this article: Murugesan R, Muthuraj S, Karthikeyan P, Kumar KA, Misra S. Laparoscopic Management of a Cholecystocutaneous Fistula: A Rare Case. Int J Sci Stud 2020;8(5):4-6.

Source of Support: Nil, **Conflicts of Interest:** None declared.