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Case Report

Laparoscopic Cholecystectomy in Situs Inversus: Case Report

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ARTICLE INFO

Article history:
Received: 9 November, 2020
Accepted: 19 November, 2020
Published: 4 December, 2020

Keywords:
Laparoscopic cholecystectomy
situs inversus

ABSTRACT

Situs inversus is a rare congenital disorder characterized by mirror image of the internal organs' arrangements. Laparoscopic cholecystectomy in such patient is considered challenging. In this paper, we present a 64-year-old female which is known to have situs inversus. She underwent uneventful laparoscopic cholecystectomy. Technical difficulty is an obstacle in these patients and modification of the surgical steps will facilitate the operation.

Introduction

Laparoscopic cholecystectomy is a common surgical procedure in general surgery. Moreover, it is done as a day surgery procedure in many centers [1]. In a specific type of patients who have anomalies like situs inversus, surgical steps and precautions differ in some points [2]. Situs inversus is a rare congenital autosomal recessive disorder with incidence rate of 1/10,000 live births [3, 4]. Many cases have been reported as situs inversus who underwent surgery for gallbladder disease with the first case was in 1991 [5].

Case Presentation

This is a 64-year-old female, known to have situs inversus totalis and diabetes mellitus. She has a history of intermittent epigastric pain for 1 year radiating to the left shoulder not associated with nausea or vomiting and no constitutional symptoms. Physical examination was unremarkable. Abdominal ultrasound was done which shows the liver in the left upper quadrant and the gallbladder contains 2.2cm mobile stone with no signs of cholecystitis. Abdominal computed tomography shows complete situs inversus (Figure 1). Patient underwent uneventful laparoscopic cholecystectomy with standard laparoscopic set for routine cholecystectomy taking into consideration sites of ports which were inserted in the opposite side as in the illustration (Figures 2 & 3). Histopathology shows chronic calculous cholecystitis.

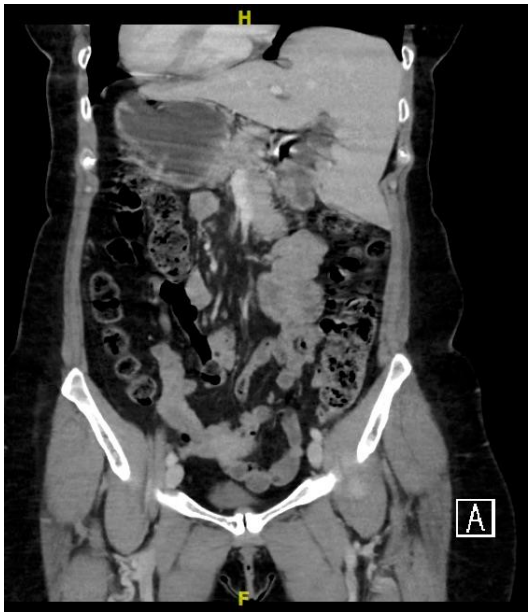

Figure 1: Computed tomography of the abdomen.

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http://dx.doi.org/10.31487/j.SCR.2020.12.08

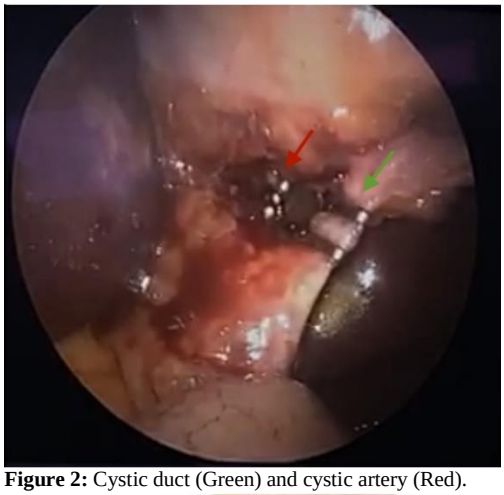

Figure 2: Cystic duct (Green) and cystic artery (Red).

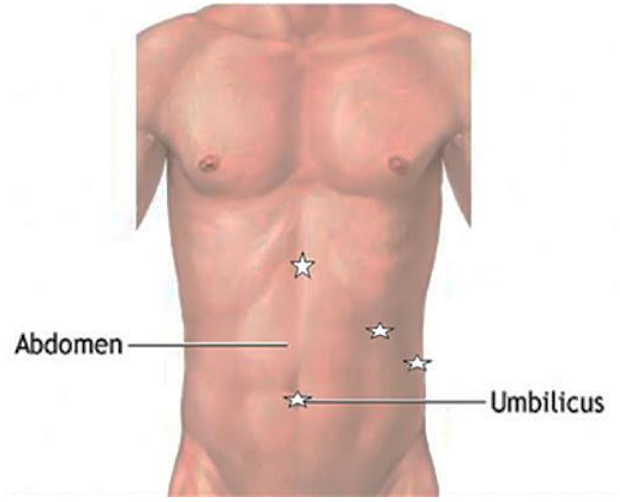

Figure 3: Port sites in patient with situs inversus.

Conclusion

Individuals with situs inversus are unaware of their congenital anomaly until they seek medical advise for unrelated conditions [6]. Diagnosis and surgery are challenging in these patients because of the mirroring effect of the organs. Surgeons should take special considerations in laparoscopic cholecystectomy in such patients, starting from ports site insertion, monitor position, assistant position, and difficulty for right-handed operator [7, 8]. In patients with situs inversus, surgery is feasible and safe but with technical modifications and adaptations.

Acknowledgements

None.

REFERENCES

1. Tang H, Dong A, Yan L (2015) Day surgery versus overnight stay laparoscopic cholecystectomy: A systematic review and meta-analysis. *Dig Liver Dis* 47: 556-561. [Crossref]
2. AlKhlaiwy O, AlMuhsin AM, Zakarneh E, Taha MY (2019) Laparoscopic cholecystectomy in situs inversus totalis: Case report with review of techniques. *Int J Surg Case Rep* 59: 208-212. [Crossref]
3. Bohun CM, Potts JE, Casey BM, Sandor GGS (2007) A population-based study of cardiac malformations and outcomes associated with dextrocardia. *Am J Cardiol* 100: 305-309. [Crossref]
4. Supriya G, Saritha S, Madan S (2013) Situs inversus totalis–a case report. *IOSR Int J Appl Phys* 3: 2278-4861.
5. Campos L, Sipes E (1991) Laparoscopic cholecystectomy in a 39-year-old female with situs inversus. *J Laparoendosc Surg* 1: 123-125. [Crossref]
6. Tabry IF, Calabrese J, Zammar H, Abou Kasem K, Akeilan H et al. (2001) Case report: off-pump total myocardial revascularization for dextrocardia and situs inversus. *Heart Surg Forum* 4: 251-253. [Crossref]
7. Du T, Hawasli A, Summe K, Meguid AA, Lai C et al. (2020) Laparoscopic Cholecystectomy in a Patient with Situs Inversus Totalis: Port Placement and Dissection Techniques. *Am J Case Rep* 21: e924896. [Crossref]
8. Alsabek MB, Arafat S, Aldirani A (2016) A case report of laparoscopic cholecystectomy in situs inversus totalis: Technique and anatomical variation. *Int J Surg Case Rep* 28: 124-126. [Crossref]