

Multiseptate Gallbladder Uncertainties: Case Report and Literature Review

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Abstract

Introduction: Multiseptate gallbladder is an anomaly found in the gallbladder, with few cases described in the world literature, causing doubts in its follow-up. Case presentation: In this case report we present a female patient, 34 years old, asymptomatic with imaging examination showing more than 20 septations in the gallbladder. The case was discussed in a multidisciplinary session and surgical treatment was chosen, cholecystectomy video laparoscopic. Conclusion: Due to the scarcity of information in the literature about the pathology and its possible evolution, in a 34-year-old patient, laparoscopic cholecystectomy was indicated.

Introduction

Gallbladder anomalies have been reported in the literature since 1936 [1], while the Multiseptate Gallbladder (MSG) or “honeycomb” was described in 1952 by Knetsch [2] and until 1958 there were no details of this pathology due to the few cases studied [1]. After several years, the etiology remains unclear, especially due to the rarity of this pathology [3], with several embryological theories attributed to this origin [4]. People with MSG can be asymptomatic and have the diagnosis as an imaging finding, but they can present different types of symptoms related to the upper digestive tract [4].

Case Presentation

Female patient, 34 years old, with no comorbidities, no use of routine medications and no radiological history, during routine examinations, morphological alterations of the gallbladder were found on abdominal ultrasound and due to limitations of the method in the initial assessment of the gallbladder by gas interposition, the investigation continued with magnetic resonance imaging of the upper abdomen associated with resonance cholangiopancreatography. A gallbladder with loss of its usual morphology and architecture was evident, distended (**Figure 1**), at the expense of numerous septations (**Figure 2**), without stones inside (**Figure 3**). The case was discussed in a multidisciplinary session composed of upper digestive system surgeons, oncologists, digestive system radiologists and gastroenterologists, and was defined by the performance of laparoscopic cholecystectomy (**Figure 4**), with a shared decision with the patient. The procedure was uneventful, the patient was discharged from hospital within the first 24 hours post-operatively on a low-fat oral diet, without pain and with flatus already present (**Figure 5**). The pathological anatomy of the gallbladder showed several trabeculae and the absence of atypia. The patient continues to be followed up on an outpatient basis and uneventfully.

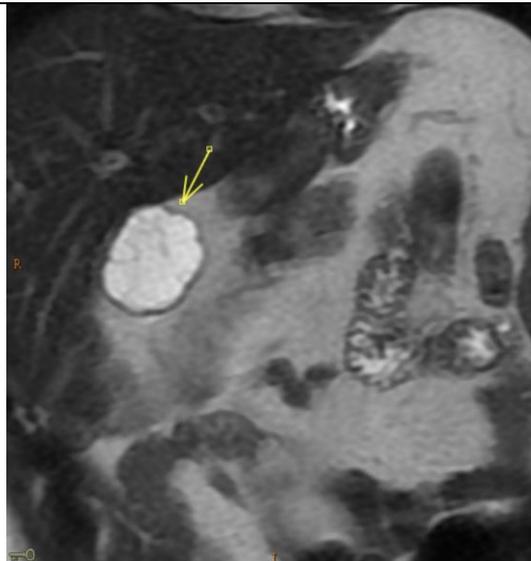


Figure 1: Gallbladder with loss of morphology (yellow arrow), distended.

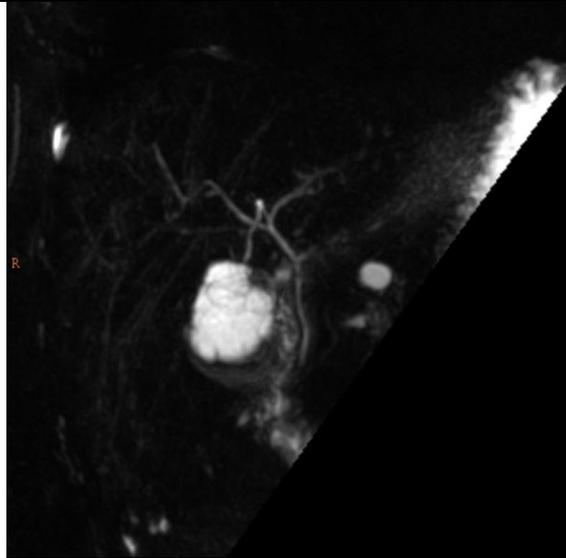


Figure 2: Gallbladder with more than 20 septations.

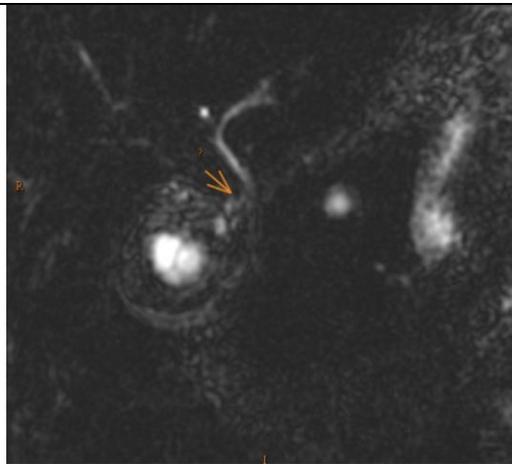


Figure 3: Cystic duct (orange arrow).

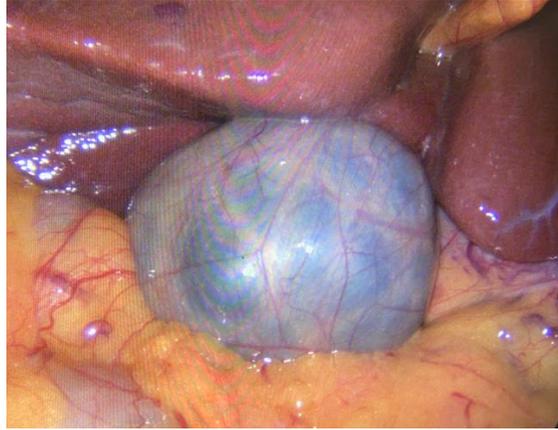


Figure 4: Multiseptate gallbladder seen in laparoscopy.



Figure 5: Multiseptate gallbladder with reduced dimensions.

Discussion

The multiseptated gallbladder is a congenital anomaly that appears to result from incomplete vacuolation in the development of the organ, promoting a type of wrinkling of the gallbladder wall, originating septa [5,6]. Septations can affect only part of the lumen, but in general they occupy the entire vesicular content, promoting the radiological description of “honeycombs” [7-9]. In our case report, the patient had the entire lumen of the gallbladder occupied by septa, more than twenty in number (Figure 2). Among the differential diagnoses are hyperplastic cholecystosis, which includes adenomyomatosis and cholesterosis of the gallbladder, and cholecystitis [10]. Reports in the literature are that the majority of patients suffer from long-lasting symptoms such as: Recurrent abdominal pain in the upper quadrant, nausea, vomiting, dyspeptic symptoms, among others [4,11] (Table 1). Our patient was asymptomatic, being part of a minority of patients [7] in a very infrequent pathology. Hsieh et al. [4] reported 56

cases in the English literature, 38 patients (66%) adults, with less than 150 cases reported in the world literature [4]. Because it is rare, there is little information available about this pathology, leading to doubts in the management of cases, divergence between being conservative or performing cholecystectomy. Yu-Min Hsieh et al [3] in the literature review highlighted several case reports with different approaches and many without information regarding the follow-up of these patients (Table 2). Even for possible symptomatic patients (Table 1), it is difficult to attribute the origin of symptoms such as jaundice and even symptoms such as: Pain, nausea and vomiting are not well understood. In theory, multiple septations would alter gallbladder motility with consequent flow stasis, causing symptoms [11]. In our opinion, other bile-pancreatic pathologies should be ruled out before ascertaining that the symptoms are related to MSG. Yu-Min Hsieh et al [3] reported an association between MSG and choledochal cyst, for example. Furthermore, for patients undergoing cholecystectomy, post-operative follow-up is of fundamental importance to confirm the resolution of the supposed symptoms. In our case report, MRI ruled out other pathologies of the bile ducts, however there was radiological doubt about a possible mucinous cystic neoplasia of the gallbladder, also rare [12].

Table 1: Main kinds of symptoms.

Symptoms	Frequency (n)
Nausea/Vomiting	8
Jaundice	3
Pain	1
Heartburn	1
Indigestion	1
Diarrhea	1

Rayan S, et al. Understanding multiseptated gallbladder: A systematic analysis with a case report.

Table 2: Demographic data of cases in literature.

Year	Author	Age	Gender	Biliary symptoms	Associated anomaly	Treatment	Prognosis
1963	Simon et al	32	F	Yes	Nil	Not detailed	-
1964	Bigg	38	M	Yes	Nil	Cholecystectomy	Resolved
1968	Sahsse	50	M	Yes	Nil	Observation	-
197	Bhagavane	27	F	Yes	Hypoplasia of GB	Cholecystectomy	-

0	t al						
1973	Cue	45	F	Yes	Cholelithiasis	Cholecystectomy	Resolved
1975	Amaud et al	28	F	Yes	Cholelithiasis	Cholecystectomy	-
1975	Shaw et al	31	F	Yes	Nil	Cholecystectomy	Resolved
1975	Konishi et al	51	F	Yes	Nil	Cholecystectomy	-
1976	Bielby et al	57	F	Yes	Cholelithiasis	Cholecystectomy	-
1977	Ha et al	28	F	Yes	Hypoplasia of GB	Cholecystectomy	-
1979	Okuda et al	37	M	Yes	Nil	Cholecystectomy	-
1981	Alawneh et al	44	F	Yes	Cholelithiasis	Cholecystectomy	
1985	Olin Oliva et al	24	F	Yes	Nil	Cholecystectomy	Resolved
1987	LewToaffe et al	23	F	No	Nil	Notdetailed	-
1987	Lev-Toaff et al	30	M	No	Nil	Observation	-
1990	Isomoto et al	43	F	Yes	Nil	Cholecystectomy	NA
1990	VasnraCBett al 391	24	M	Yes	Notdetailed	Notdetailed	-
1994	Naritimiee et al	45	F	Yes	Nil	Cholecystectomy	-
1994	Ohm et al	49	F	Yes	Nil	Observation	Resolved
1997	Saimura et al	30	M	Yes	Nil	Cholecystectomy	Resolved
1997	Poiorek et al	25	F	No	Nil	Cholecystectomy	Resolved

2000	Miwa et al	70	F	No	Nil	Observation	NA
2002	KOO'etalte	21	M	No	Nil	Observation	NA
2003	Erdumusee t al	23	M	No	Nil	Observation	-
2003	Erdumuset al 8)	33	F	No	Nil	Observation	-
2003	Erdopmuse t al	40	F	No	Nil	Observation	-
2003	Erdumusee t al	45	M	Yes	Nil	Notdetailed	-
2003	Erdcpmuse t al	40	F	Yes	Nil	Notdetailed	-
2003	Erdumusea t al	20	F	Yes	Nil	Cholecystectomy	-
2004	Nakazawae t al	56	F	Yes	Nil	Cholecystectomy	Resolv ed
2005	Yamamoo et al	46	F	No	Anomalouspancreatic obiliary ductal union	Total gastrectomy/ Cholecystectomy	-
2006	Türkvatane t al	62	M	Yes	Ectopic, hypoplasticgallbladder	Cholecystectomy/ Hepaticojejunostomy	-
2009	Riæra- Trche et al	19	F	No	Nil	Gastreotomy/cholecyst ectomy	Resolv ed
2011	Karaca et al	29	F	Yes	Nil	Cholecystectomy	Resolv ed
2017	HonrubiaL Yez et al	28	F	Yes	Nil	Cholecystectomy	Resolv ed
2020	Singh et al	49	F	Yes	CholedochalCyst	Observation	Resolv ed

Yu-Min Hsieh et al. Multiseptate gallbladder. A case report and literature review. Medicine.

*- , not information

NA, not applicable

Conclusion

In this case report, laparoscopic cholecystectomy was based on the lack of information about the pathology and its possible evolution, in a 34-year-old patient.

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