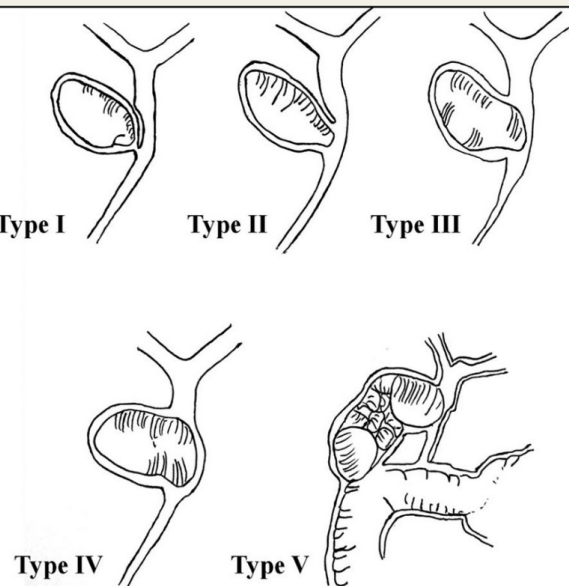


Mirizzi Syndrome: An Unusual Case of Benign Painless Jaundice

Introduction

- Mirizzi syndrome (MS) is a rare clinical entity implicated in fewer than 1% of cholecystectomies^{1,2}
- The hallmark of this process is extrinsic compression of the common hepatic duct by an impacted gallstone in the gallbladder neck or cystic duct¹
- This results in obstructive jaundice and a myriad of symptoms ranging from vague abdominal pain to cholangitis^{3,4}
- Mirizzi syndrome can be subdivided into five different types via the Csendes classification (figure 1)^{5,6}
 - Type I: external compression of the common bile duct
 - Types II-IV are varying severities of cholecystobiliary fistula with IV being (>50%) complete obstruction
 - Type V presents as a cholecystoenteric fistula.
- MS can mimic more sinister processes such as biliary neoplasm⁷

Figure 1: Csendes Classification⁶



Case Description

History of Present Illness

- A 57-year-old female presented to the ED with intermittent nausea, vomiting, and painless jaundice. The patient reported at least a week of symptoms during which she also noted **dark urine** and **pale colored stools**. She developed extreme **pruritis** all over her body, prompting her to seek care.

Vital Signs

- T:** 98.8°F **HR:** 64 bpm **BP:** 132/77 mmHg

Examination:

- General:** Alert, oriented, NAD
- CVS:** Regular
- Pulm:** Non-labored
- Abd:** Soft, non-tender, non-distended, **negative Murphy's**
- Skin:** Icteric

Medical History

- Hypertension
- Hypothyroidism
- Obesity (BMI 37 kg/m²)

Medications

- Lisinopril/hydrochlorothiazide
- Levothyroxine

Discussion

- MS is a rare gallbladder pathology that presents with a wide range of symptoms although RUQ pain and jaundice are the most common^{3,4}
- Cholangitis is present in more than 50% of cases⁸
- It is paramount that neoplastic causes of jaundice are ruled out, as surgical intervention for periampullary carcinomas requires a radically different resection⁷
- The gold standard for diagnosis is endoscopic retrograde cholangiopancreatography (ERCP) although modalities including ultrasound, magnetic resonance imaging, and computed tomography are often performed initially⁹⁻¹¹
- The standard of care for management is cholecystectomy¹
 - Laparoscopy can be attempted; however, conversion rates to open are not inconsequential¹

Hospital Course

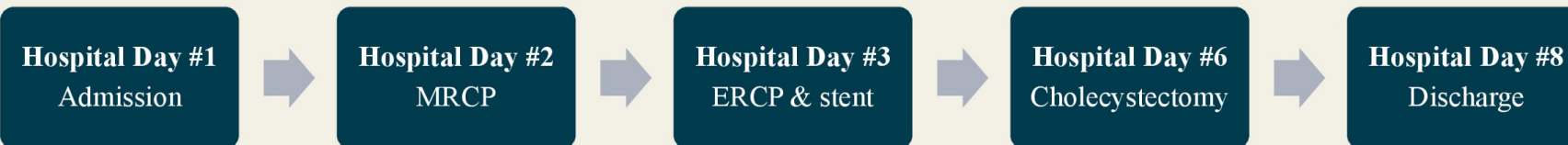


Figure 2: Laboratory Analysis

	AST	ALT	Alk Phos	Tbili
HD#1	202	421	178	10.5
HD#2	141	318	146	8.3
HD#3	115	252	162	9.7
HD#4	79	174	161	7.2
HD#5	64	142	165	5.2
POD#1	113	116	136	2.7
POD#2	69	91	115	2.2

Figure 3: MRCP

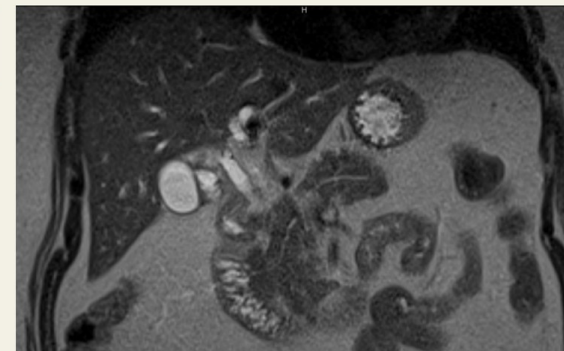
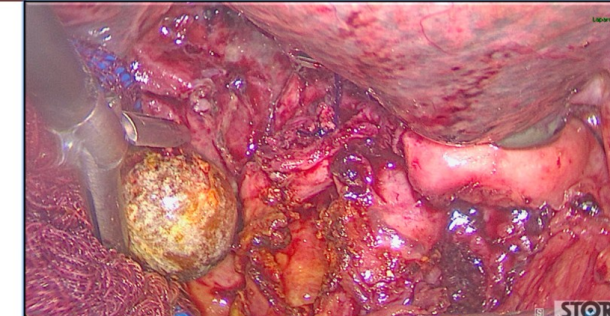


Figure 4: ERCP



Surgical Course

Laparoscopic cholecystectomy was achieved with great difficulty. The gallbladder was found to be markedly inflamed and largely intra-hepatic. A top-down approach was utilized to obtain the critical view of safety. The gallbladder was removed, however, the massive stone seen on MRCP was wedged deeply in the cystic duct. A distal cystic ductotomy was utilized to remove the stone and subsequently repaired primarily. Drains were left at the conclusion of the procedure.



Conclusion

Mirizzi syndrome is a rare gallbladder pathology that presents as obstructive jaundice secondary to extrinsic compression of the common hepatic duct. Despite its complexity, patient outcomes are typically excellent.

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