

Transoral Management of type IV Mirizzi's Syndrome

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INTRODUCTION

Mirizzi's syndrome is a rare complication of chronic calculous cholecystitis, secondary to the obliteration of the gallbladder infundibulum or cystic duct by gallstones, which leads to compression and subsequent obstruction of the adjacent common bile duct (CBD) [1]. Five types have been described (Figure 1), with types II to IV corresponding to the development of a cholecystocholedochal (CCC) fistula with increasing degree of obstruction and destruction of the bile duct wall. Type IV comprises the whole circumference of the CBD [2]. Endoscopic Retrograde Cholangiopancreatography (ERCP) (Figure 2) has been described as a diagnostic and therapeutic option for type II [3], but the data is limited in regards to the treatment of more complex type IV fistulas.

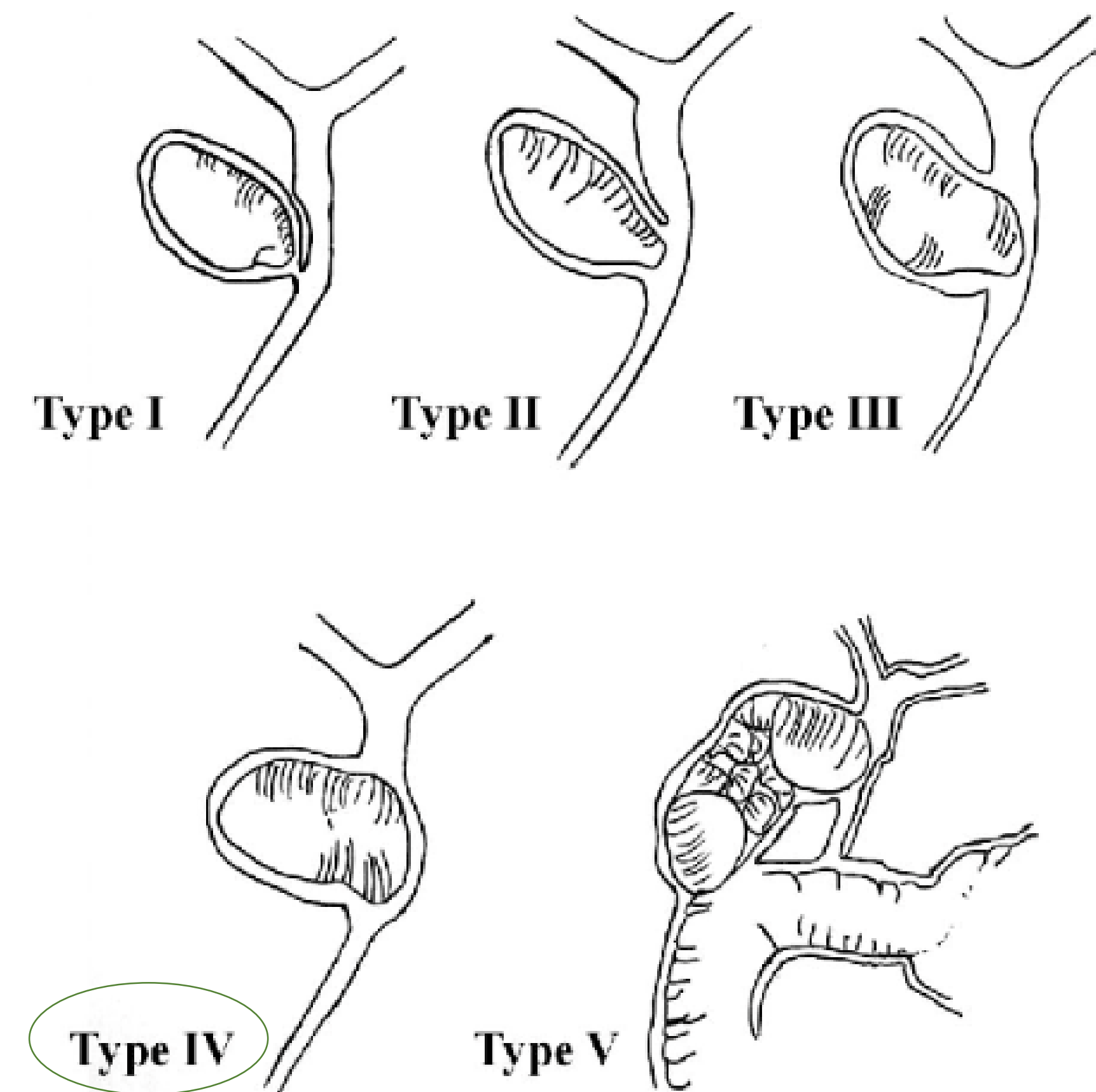


Fig 1. Types of Mirizzi's syndrome



Fig 2. Duodenoscope with choledochoscope inserted through the working channel

CASE

51 year old female, complaining of epigastric and right upper quadrant pain without jaundice. Abdominal ultrasound and Magnetic Resonance Imaging (MRI) (Figure 3) demonstrated the presence of Mirizzi's syndrome with CCC fistula and the presence of a 2.6 cm stone. ERCP with fluoroscopy was performed confirming the presence of a large stone lodged in the cystic duct that extended into the middle third of the CBD, producing a complete obstruction (Figure 4a). A sphincterotomy and cannulation of the CBD was followed by the introduction of a Spyglass™ (Boston Scientific, USA) choledochoscope (Figure 5), use of electrohydraulic probe for lithotripsy of the impacted stone, balloon sweep of the debris, and plastic biliary stent placement (Figure 4b). The patient tolerated the procedure well and was discharged after recovery from anesthesia. She then underwent an uneventful stent removal and cholecystectomy 3 months later.

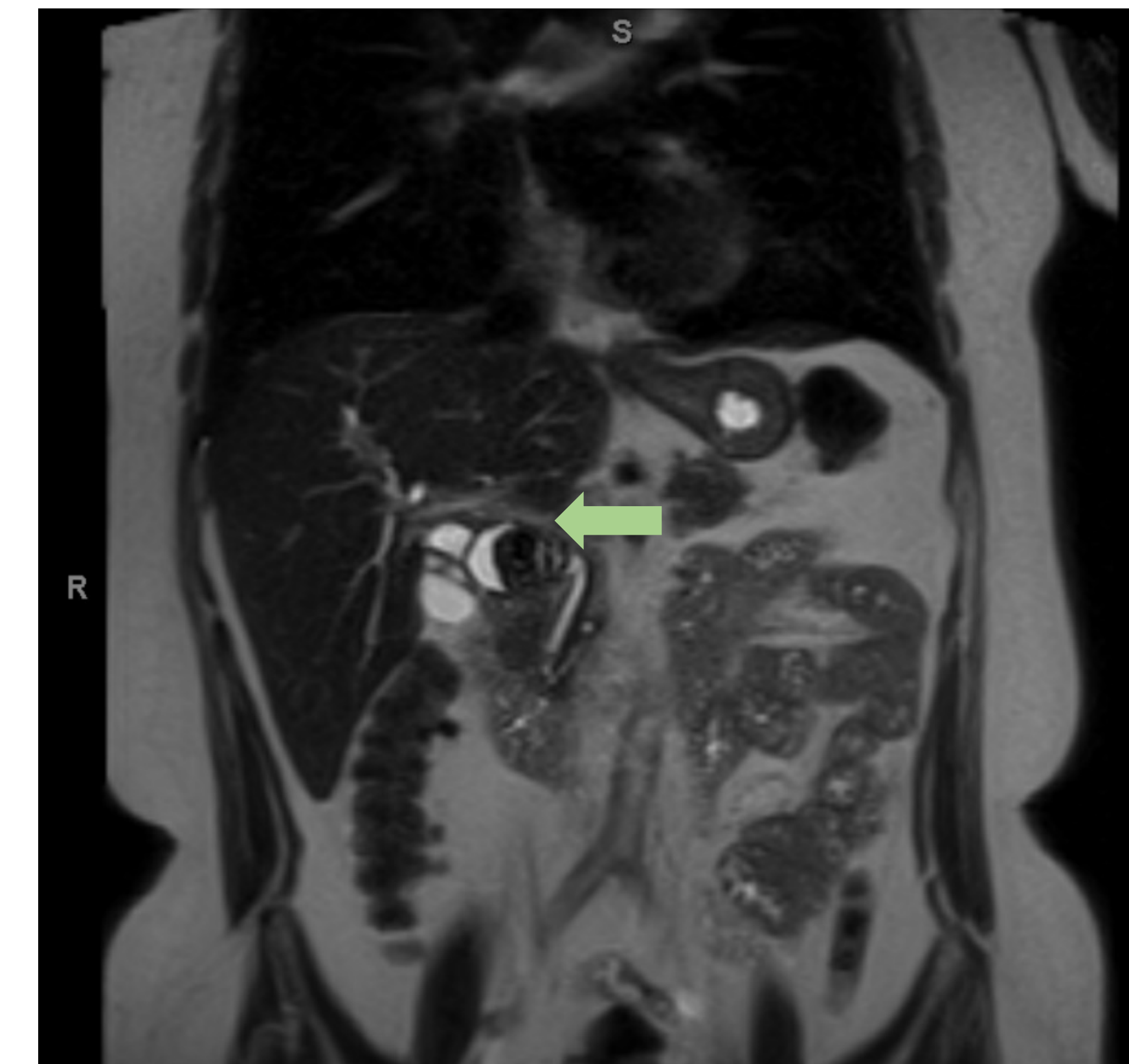


Fig 3. Green arrow showing cholecystocholedochal fistula with stone lodged in it

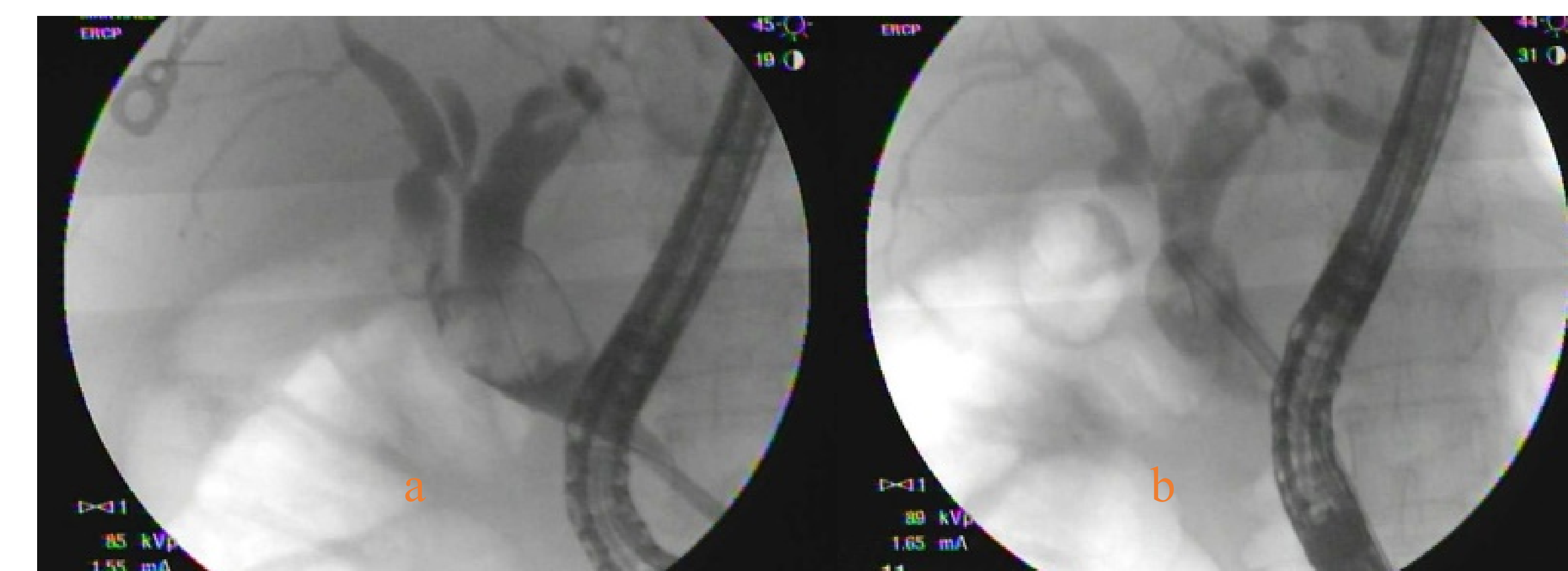


Fig 4a. Filling defect seen in a dilated mid CBD
Fig 4b. CBD after stone removal and stent placement

CONCLUSION

Type IV Mirizzi's syndrome remains a surgical challenge. The advancement of minimally invasive and endoscopic tools and techniques in well trained surgeons makes it possible to resolve a problem that otherwise would result in a potential open procedure with its associated morbidity.

REFERENCES

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Fig 5. Cholangioscopic view of the stone inside of the CBD