

## ERCP without fluoroscopy in a pregnant woman with a common bile duct stone

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A 31-year-old woman was admitted for abdominal pain in the right upper quadrant and a cholestatic liver chemistry pattern. She was in her 23<sup>rd</sup> week of pregnancy. A magnetic resonance cholangiopancreatography (MRCP) was performed. Cholecystolithiasis and a common bile duct stone were observed (Fig. 1). Endoscopic retrograde cholangiopancreatography (ERCP) was deemed to be the treatment of choice. The patient was informed that as little radiation as possible would be used. However, as she was in her second trimester of pregnancy, there was a reduced possibility of teratogenicity with a short radiation time. As in this gestational stage the abdomen is already distended, the ERCP procedure was performed with the patient lying on her left side. A lead apron was used to cover the patient's abdomen. A tapered sphincterotome loaded with a 0.025 inch guidewire was used for common bile duct cannulation (*Autotome, Rapid Exchange System*). Once the sphincterotome had entered the ampulla, in the theoretically common bile duct position, the guidewire was pushed and advanced freely. Afterwards, the sphincterotome was passed after the guidewire, and bile juice was aspirated to assess a correct bile duct position. The guidewire was secured not to lose biliary cannulation. The sphincterotome was squeezed and Vater's papilla was cut (Fig. 2). Subsequently, the sphincterotome was withdrawn, leaving always the



Fig. 1. Abdominal magnetic resonance image. A single common bile duct stone and the pregnant uterus are observed.



Fig. 2. Starting biliary sphincterotomy. The guidewire previously inserted in the common bile duct is seen inside the sphincterotome. This guidewire maintains continuous access to the bile duct without need for fluoroscopy.

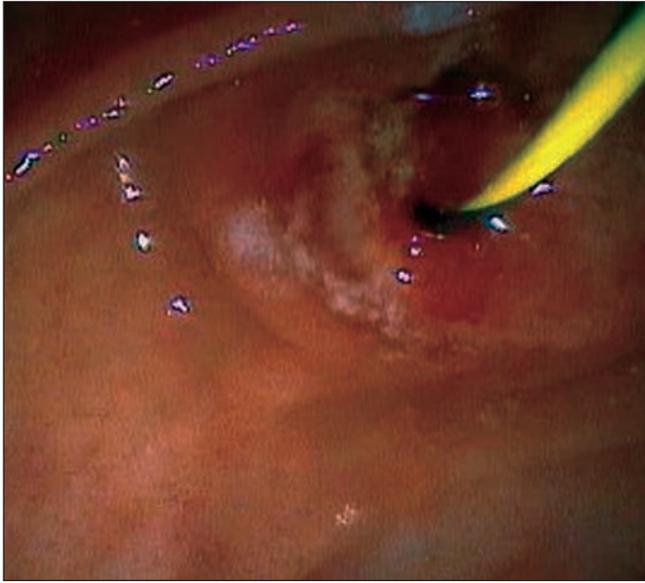


Fig. 3. After biliary sphincterotomy, the sphincterotome was withdrawn. There remains always the guidewire. An extraction balloon will be glided over it to extract the common bile duct stone.

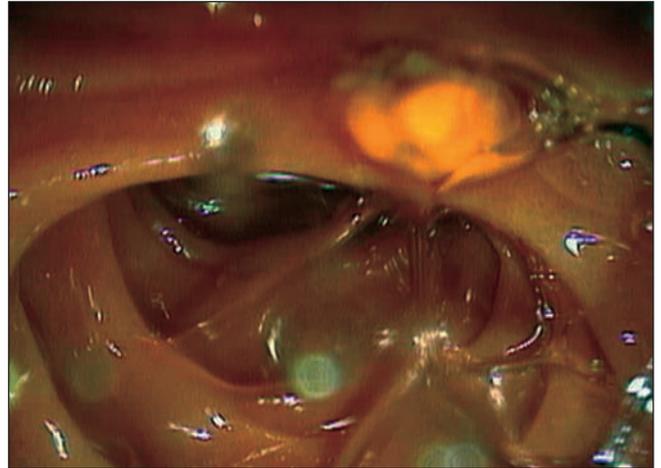


Fig. 4. The extracted common bile duct stone is seen in the duodenum.

guidewire inside the common bile duct (Fig. 3). An extracting balloon was passed over the guidewire and the common bile duct stone was extracted (Fig. 4). No fluoroscopy was used at any time.

The current technology available to diagnose biliopancreatic diseases, as is the case with MRCP, and improved ERCP devices (1), make it possible to reduce fluoroscopy or even not to use it at all. This can be done on rare occasions, including pregnant patients (2).

## REFERENCES

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2. Simmons DC, Tarnasky PR, Rivera-Alsina ME. Endoscopic retrograde cholangiopancreatography (ERCP) in pregnancy without the use of radiation. *Am J Obstet Gynecol* 2004; 190: 1467-9.