

### Therapeutic Endoscopic Retrograde Cholangiopancreatography with Ultra-Short Fluoroscopy: Report of Two Cases

The management of symptomatic common bile duct stones in pregnancy is problematic. Various reports have shown that endoscopic retrograde cholangiopancreatography (ERCP) can be a successful form of treatment (1), since surgery carries a risk of fetal loss. We report here our experience with two pregnant patients.

The first case was that of a 19-year-old woman presenting with a clinical picture of cholangitis. An ultrasound examination showed that the common bile duct was dilated to 10 mm. After an attempt at conservative management, it was decided to carry out an ERCP. After passage of a sphincterotome larger than 10 cm and injection of 2 ml of contrast, fluoroscopy was performed for a few seconds, and then the sphincterotome was withdrawn in the correct position. Endoscopic sphincterotomy was carried out, and a few stones were extracted using a basket and balloon. The patient was discharged in a satisfactory condition.

The second case was that of a 40-year-old patient who was two months pregnant. She was initially managed conservatively for obstructive jaundice. An ultrasound examination showed dilation of the common bile duct and intrahepatic ducts. It was decided to carry out ERCP, which was performed using the same technique, and two stones were extracted.

In both patients, a lithium fluoride extruded chip (Harlshow TLD-100) was placed on the patient's abdomen. When the procedures had been completed, the chip was read using a Harlshow 6600 TLD Reader. In both cases, the radiation exposure was about 5 mrem, which is within the recommended safe level (2).

The frequency of intervention for gallstones in pregnancy is reported to be low. Cholecystectomy with common bile duct exploration is associated with a maternal mortality rate of 15%, and a fetal loss rate of 60% (3). ERCP in these conditions has a good outcome. Jamider et al. reported on 23 pregnant patients who underwent diagnostic and therapeutic ERCP, and concluded that ERCP is safe and effective during pregnancy (1). Baillie et al. concluded that ERCP should be considered in women presenting with acute cholangitis of gallstone pancreatitis during pregnancy (4).

We conclude that during ERCP, with proper use of standard safety equipment, the radiation exposure does not exceed the levels currently recommended in pregnancy, and common bile duct stones during pregnancy can be managed safely, with ultra-short radiation exposure, in experienced hands.

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