

Letters to the Editor

Role of endoscopic ultrasound in pregnancy

Key words: EUS. Pregnancy. ERCP. Common bile duct stones.

Dear Editor,

I have read with great interest the article by García-Cano (1) and the Editorial of López Roses (2) on endoscopic retrograde cholangiopancreatography (ERCP) during pregnancy. These manuscripts show the experience of 6 national hospitals over a period of 10 years (1), and a critical review of existing evidence on the subject and the measures that may be used to minimize the risk of damage to the fetus (2). Both authors (1,2) agree that, although endoscopic ultrasound (EUS) is a highly effective technique for minimally invasive diagnosis of choledocholithiasis (3), its role as a screening method for stones in pregnant women appears to be secondary, and other type of diagnostic tests that do not require sedation are preferred (e.g.: magnetic resonance cholangiography). It is important to highlight that García-Cano (1) states in the discussion of the manuscript that “a very promising application of therapeutic EUS is the possibility to perform with the linear echoendoscope the cannulation of the bile duct, sphincterotomy and stone extraction” (4).

I certainly agree with García-Cano's point of view (1) and I believe it would be interesting to clarify certain points in this regard. The technique which is discussed was described by Artifon (4) and may be useful in patients in which X rays are not allowed. A linear echoendoscope with lateral/oblique vision is necessary to perform this technique. This type of echoendoscope possesses an elevator/nail that helps one to point the sphincterotome towards the papilla in the desired direction, and is equipped as well with a working channel that allows passage of the sphincterotome. Can-

ulation technique of the bile duct with the linear echoendoscope is identical to ERCP, with the difference that once the bile duct has been cannulated, it is not necessary the use of X ray for control, as we can control which duct has been cannulated by means of the EUS image (4). By using this technique, we can avoid radiate the patient and the fetus, and therefore we completely eliminate the associated risks of radiation during pregnancy. The efficacy and safety of this technique for the diagnosis and treatment of the choledocholithiasis has been evaluated in a prospective randomized study that included 52 patients (26 treated by ERCP and 26 by means of EUS guided/monitored cholangiography without X ray control). The rate of bile duct cannulation (96.2% in the Group of ERCP vs. 88.5% in the EUS guided/monitored Group) and complications (15.3% in ERCP Group vs. 11.5% in the EUS Group), did not differ significantly (4). In summary, results of this study demonstrate that with a linear echoendoscope we may cannulate the bile duct and perform therapy in an effective and safe manner.

In these days of consolidation of the USE technique and expansion of their therapeutic possibilities (5), I believe it is desirable to bear in mind this possible application, which may be of great help, mainly on those rare occasions in which it is necessary to perform an ERCP on a pregnant woman.

Enrique Vázquez-Sequeiros

Service of Gastroenterology. Hospital Universitario Ramón y Cajal. Madrid, Spain

References

1. García-Cano J, Pérez-Miranda M, Pérez Roldán F, González-Carro P, González-Huix F, de la Serna C. ERCP during pregnancy. *Rev Esp Enferm Dig* 2012;104(2):53-8.
2. López Rosés L. ERCP during pregnancy. *Rev Esp Enferm Dig* 2012; 104(2): 49-52.
3. Karakan T, Cindoruk M, Alagozlu H, Ergun M, Dumlu S, Unal S. EUS versus endoscopic retrograde cholangiography for patients with

- intermediate probability of bile duct stones: a prospective randomized trial. *Gastrointest Endosc* 2009;69(2):244-52.
4. Artifon EL, Kumar A, Eloubeidi MA, Chu A, Halwan B, Sakai P, et al. Prospective randomized trial of EUS versus ERCP-guided common bile duct stone removal: an interim report (with video). *Gastrointest Endosc* 2009;69:238-43.
 5. Artifon EL, Ferreira FC, Otoch JP, Rasslan S, Itoi T, Perez-Miranda M. EUS-guided biliary drainage: a review article. *JOP* 2012;13(1):7-17.