

PICTURES IN DIGESTIVE PATHOLOGY

Anal incontinence: evaluation of the anal sphincter by endoscopic ultrasound

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Fig. 1.- Normal internal anal sphincter (showed by a radial-scanning echoendoscope at a frequency of 7.5 MHz). Hypoechoic band marked by arrows.

Esfínter anal interno indemne (visualizado con sonda endosonográfica radial a una frecuencia de 7,5 MHz): banda hipocogénica delimitada por las flechas.



Fig. 2.- Internal anal sphincter defect (showed by a radial-scanning echoendoscope at a frequency of 7.5 MHz): the hypoechoic band is clearly interrupted in half of the circumference (arrows).

Defecto del esfínter anal interno (visualizado con sonda endosonográfica radial a una frecuencia de 7,5 MHz): la banda hipocogénica se ve claramente interrumpida en la mitad de la circunferencia (flechas).

A 39-year-old woman was referred by her surgeon for assessment of her anal canal. The patient began to have fecal incontinence (gas and liquid stools) shortly after proctologic surgery (fistulectomy). She did not report any obstetric trauma.

We performed an anal inspection and a digital rectal examination. There were no anatomical defects, but a severe hypotonic anal sphincter was encountered. Since there is a radial-scanning ultrasound endoscope with frontal vision (Pentax EG3630UR) available in our Unit, an endoscopic review of the rectal and sigmoid mucosa was carried out, with no abnormalities being detected. A radial endoscopic ultrasonography was performed using a frequency of 7.5 MHz during the same exploration. At the middle of the anal canal, the internal anal sphincter is seen as a hypoechoic ring under normal conditions (Fig. 1). In this patient there was a 50% defect at this hypoechoic band representing the internal anal sphincter (Fig. 2). No defects in the external anal sphincter were seen, other than it was slightly thin. The patient had fecal incontinence due to proctologic surgery with internal and sphincter damage. Therefore, the patient had fecal incontinence due to her proctologic surgery having damaged the internal anal sphincter. An anorectal manometry was performed, and it confirmed the internal anal sphincter hypotonia and also showed a lower pressure at the external anal sphincter.

Endoscopic ultrasonography of the anal canal is an accurate technique for the evaluation of the external and internal anal sphincters (1-3). The sensitivity for the detection of abnormalities at both sphincters is about 100%, since the specificity for defects in the external sphincter is 100%, and 95.5% regarding the internal sphincter (4). Endoanal ultrasound is essential in order to plan fecal incontinence surgery, and mandatory along with a functional study of the anal canal in Units where pelvic floor surgery is performed.

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