High-resolution Anorectal Manometry and Anal Endosonographic Findings in the Evaluation of Fecal Incontinence

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A 65-year-old woman presented with moderate volume of fecal incontinence during the past 2 years. She usually was not aware of it although sometimes she was not able to hold back stool until going to the bathroom in time. The stools were usually soft and formed. She denied neurologic symptoms, urinary incontinence and pelvic or perianal injury. She had 2 children by natural childbirth. She has taken nonsteroidal anti-inflammatory drug for osteoarthritis. Perianal examination showed unremarkable

findings. Digital rectal examination revealed weak resting tone and normal increase with squeeze. However, digital rectal examination is not reliable and is subject to interobserver differences due to several factors including the size of the examiner's finger, the technique and the cooperation of patient.¹ Therefore high-resolution anorectal manometry (ManoScan, Sierra Scienti-

Figure 1. The low mean resting anal pressure (28 mmHg), maximum squeezing pressure (135 mmHg) and short duration of sustained squeezing pressure (5 second) are observed. During coughing, abrupt increase of anal sphincter pressure is noted.

Figure 2. Anal endosonography shows the presence of scarring of internal anal sphincter from the 8 to 1-o'clock direction.

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fic Instruments, Los Angeles, CA, USA) and anal endosonography were performed. The high-resolution anorectal manometry showed a very low mean resting anal pressure, relatively intact maximal squeezing pressure and short duration of the sustained squeezing pressure. However abrupt increase of anal sphincter pressure above rectal pressure that could prevent stress incontinence was observed during cough (Fig. 1). Because resting anal pressure predominantly represents the internal anal sphincter (IAS) pressure and the squeezing pressure predominantly measures the external anal sphincter pressure, these findings imply defect in IAS with normal external anal sphincter.²

The anal endosonography also revealed the presence of scarring of IAS from the 8 to 1-o'clock direction (Fig. 2). In this patient, fecal incontinence was turned out to be caused by the IAS defect.

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