Buttock pain after sacrospinous hysteropexy

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Dear Editor:

With great interest, I read the recent publication of Dietz et al. [1] in your journal. The authors describe that buttock pain occurred post-operatively in ~18% of patients undergoing sacrospinous hysteropexy for pelvic organ prolapse. The authors state in their discussion that the pain can be explained by injury to nerves of the sacral plexus, such as the branches of the pudendal nerve. In this letter, I would like to propose that this pain can be explained by injury of the 'levator ani nerve', the nerve that lies on the superior surface of the sacrospinous ligament and in the area of the operative field. This explanation has been neglected in clinical studies so far.

Recent research by our group [2, 3] and others [4–8] has emphasized that the levator ani muscle is innervated not only by the pudendal nerve from its inferior surface but also by the levator ani nerve from its superior surface. The levator ani nerve originates directly from the sacral plexus and courses on the superior surface of the coccygeus muscle/sacrospinous ligament complex towards the superior surface of the levator ani muscle (Fig. 1). On its trajectory, it crosses the sacrospinous ligament 0–4 cm

medial to the ischial spine [2, 6–8]. As sutures are placed through the sacrospinous ligament approximately 2 cm medial to the ischial spine during sacrospinous hysteropexy or sacrospinous ligament fixation in general, the procedure can injure the levator ani nerve [2, 5–8] and thereby entail the sensation of buttock pain. Additional injury to the pudendal nerve may also occur because the pudendal nerve, which lies inferior to the sacrospinous ligament, is only 4–11 mm apart from levator ani nerve [2].

Fig. 1 The levator ani nerve (LAN). Left side of a mid-sagittally transected pelvis of an adult female cadaver. Arrowheads illustrate the course of the levator ani nerve. Note the LAN's course in the vicinity of the ischial spine (white pinhead)

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