

E-NOTES appendectomy versus transvaginal appendectomy: similar cosmetic results but shorter complete recovery?

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Dear Sir

We read with interest the article by Palanivelu et al. [1] reporting on transvaginal endoscopic appendectomy in human, and the letters by Rattner [2, 3] and Slim and Launay-Savary [4] referring to that paper and commenting on the vaginal route for natural orifice transluminal endoscopic surgery (NOTES) procedures. These publications deserve comment regarding the approach for scarless appendectomy and perception of transvaginal route for NOTES.

Palanivelu et al. recently reported NOTES, transvaginal, appendectomy successfully achieved in one case [5]. We agree with those authors that transvaginal approach offers advantages compared with other natural orifice for NOTES appendectomy regarding access closure and instrumentation use. However, it should be noted that transvaginal approach necessitates culdotomy, which implies avoidance of sexual intercourse for a non-negligible period for sexually active female. This delay varies from 15 days to 6 weeks depending on the transvaginal NOTES protocol [5–7], while the period of sexual abstinence recommended by gynaecologist is 3–4 weeks [8–10]. This requested abstinence after culdotomy is one of the reasons for preference of laparoscopic tubal sterilisation over transvaginal approach by gynaecologist and patients [10]. Regarding this issue transumbilical single-port access (SPA) laparoscopy, E-NOTES, appendectomy may be advantageous as no sexual abstinence is needed and it enables quicker return to normal social life, especially in young sexually active

females. Importantly, as noted by Slim and Launay-Savary, transvaginal approach for NOTES is not favoured by women, with 94% refusing it in a French survey [4]. This refusal is repeated in a survey we are conducting in Switzerland (preliminary data). Thus transvaginal approach, while being easier for surgeons, probably will not be the route of choice, and the oral approach, which is favoured by US patients, should be developed for NOTES [11].

Transvaginal appendectomy is only feasible in women, while transumbilical SPA may be offered to all patients. This is of importance as cosmetic issues are not only relevant to female patients [11, 12].

Transvaginal NOTES appendectomy is associated with perfect cosmetic results. However, cosmetic results of transumbilical SPA, or E-NOTES, appendectomy are also excellent, achieving an invisible scar blinded in the embryologic scar of the umbilicus [12–16].

Transumbilical SPA appendectomy is a safe and recognized approach, which is associated with a higher success rate compared with transvaginal NOTES appendectomy to date, and before new instrumentation is developed for NOTES [15, 17, 18]. This is illustrated by the results of Palanivelu et al., who were able to complete only one case out of six attempted by transvaginal NOTES [1]. In our experience the success rate of transumbilical SPA appendectomy is more than 90% in unselected cases, which correlates with literature data [15]. To perform transumbilical SPA appendectomy, we use a single 10-mm umbilical port with working-channel endoscope as described for SPA right colectomy [14]. We complete the appendectomy as described by Ng [15], but without any additional port or transparietal stitches or assistance. Finally to avoid port complication, such as abscesses which have been described, we always use a specimen bag for appendix extraction.

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In conclusion, while the progresses made for NOTES continue to accumulate, transumbilical SPA appendectomy should not be neglected. SPA appendectomy offers excellent cosmetic results, with shorter postoperative recovery than transvaginal NOTES appendectomy, especially regarding sexuality. And the low acceptance of transvaginal route in Western countries should motivate us to developed SPA appendectomy or alternative routes for NOTES appendectomy.

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