Laparoscopic findings after ultrasound-guided transvaginal ethanol sclerotherapy for ovarian endometrial cyst

Dear Sir,

There are many options for the management of ovarian endometrial cysts. These include expectancy of pregnancy, medical treatment, surgery (laparoscopy or laparotomy), ultrasound-guided aspiration of endometrial cysts. In the treatment of a relatively large endometrial cyst, medical therapy is not effective in diminishing its size and, therefore, surgery has been chosen as a first treatment line. In selected cases with a sizeable endometrial cyst, ultrasound-guided aspiration has been proposed as it is less invasive (Giorlandino et al., 1993; Zanetta et al., 1995). Although this technique is simple and very easy to perform, a higher recurrence rate has restricted its wider application. As an option for treating benign cysts arising from various organs, e.g. the thyroid (Antonelli et al., 1994), the parathyroid (Zingrillo et al., 1996), the liver (Ikeda et al., 1996), the kidney (el-Diasty et al., 1995), the spleen (Akhan et al., 1997) and the heart (Kinoshita et al., 1996), ethanol sclerotherapy has been shown to be efficacious and cost-effective. Likewise, recent studies have argued for ethanol sclerotherapy after aspirating an endometrial cyst under ultrasound or laparoscopy in hope of better therapeutic effect than that obtained after aspiration alone (Akamatsu et al., 1998). However, as yet, no data are available in the literature concerning its long-term sequelae especially in women suffering from infertility.

Here we report the laparoscopic findings of four patients who had undergone ethanol sclerotherapy for an endometrial cyst. The most intriguing finding was that all patients had severe and unusual adhesions surrounding the ovaries. All the operated ovaries were enclosed with filmy and string-like adhesions, the majority of which adhered to the cul-de-sac. Interestingly, in two cases, there were filmy adhesions between the rectum and the intestine, which might have been caused by the leakage of injected ethanol.

In order to overcome the drawback of the high recurrence rate associated with ultrasound-guided aspiration of endometrial cysts of the ovary, ethanol sclerotherapy has been introduced as a new therapeutic approach. In a variety of organs, many reports have demonstrated its efficacy is associated with a low recurrence rate. However, as for the treatment of endometrial cysts, much attention should be paid toward preserving reproductive functions as well. In this regard, the post-operative formation of adhesions should be avoided. The findings described here show that all the cases undergoing ethanol injection had severe and unfamiliar adhesions. It has been suggested that adhesion formation could occur after transvaginal aspiration alone (Muzii et al., 1995). Although the precise mechanisms of extensive adhesions after ethanol sclerotherapy are unknown, one may infer that chemical irritation of the visceral peritoneum due to ethanol leakage may be a causative factor. Based on these findings, ethanol sclerotherapy, despite being less invasive when compared with surgery, seems to be a traumatic and harmful therapy. Furthermore, the possible toxicity of injected ethanol to ova located in the surrounding ovarian cortex has not been completely excluded. As the ovary is sensitive to noxious chemicals, potential damage might remain to be addressed. Other than the local untoward effect of ethanol, systemic acute alcoholism has also been reported as an unfavourable complication (Tei et al., 1996). In addition, although cytological study of cystic contents can help in detecting atypia, histological examination is the ultimate procedure to exclude malignancy. Thus the lack of available histology also make this procedure undesirable. Collectively, ethanol sclerotherapy can not be an alternative to ultrasound-guided aspiration and rather, should not be employed as a treatment option for infertile women with ovarian endometriomatous.

References


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