taken to prove (or disprove) that the peritoneum lacked endometriosis at the conclusion of therapy. The results were based on visualization alone.

Dr Roman switches from the concept of OME to proper therapy for endometriosis. There is no evidence to support his statement that it is impossible to remove all endometriosis in the pelvis. This opinion is held by many surgeons, but is too often used to rationalize incomplete surgery or as a reason not to attempt surgery at all. Nothing we wrote implied that symptom response is synonymous with response of endometriosis to aggressive excisional surgery. Women can have multiple causes of pelvic pain. Our hope is that better identification and surgical removal of endometriosis will help remove this diagnosis from consideration and break the cycle of repetitive surgeries and medical therapies that are the unfortunate modern hallmark of endometriosis treatment.

Dr Roman’s proposed study would have predictable results: inducing amenorrhea with ovarian suppression will improve uterine dysmenorrhea, which will add to the pain relief of excision of endometriosis alone. While overall symptom improvement is important, ovarian suppression may result in improvement of any estrogen-dependent symptom produced by a variety of diseases. Given the difficulty of detecting adenomyosis without hysterectomy, how can one reliably identify study candidates who do not have adenomyosis, a potential silent confounding variable? In addition to symptom response it would be important to check robust measurements of ovarian function before and ≥6 months after cessation of ovarian suppression. This would help to determine if symptom improvement might be due to prolonged or permanently reduced ovarian function.

The concept of OME has important implications for the surgical cure of endometriosis. While it is true that endometriosis requires microscopy for accurate histologic diagnosis, this does not render its sometimes extremely subtle morphologies invisible during surgery. Clinicians applying the Redwine criteria of normal peritoneum have recently documented lack of recurrent disease in reoperated adolescents following excision of endometriosis. (Yeung et al., 2011) For a disease, which has long been considered incurable, these results underscore the previous studies: most patients undergoing aggressive excision of endometriosis do not have endometriosis. If the absence of a disease after treatment is defined as cure, it can be said that most patients undergoing excision of endometriosis by experienced surgeons are cured by surgery (Meigs, 1953; Wheeler & Malinak, 1987; Redwine, 1991; Abbott et al., 2004; Yeung et al., 2011). This fact should be embraced and all means available should be used to identify endometriosis accurately at surgery, thus improving surgical outcomes in all endometriosis patients.

Note: In a proprietary study from the 1980s which helped bring Lupron to market and which is now under a USA federal court seal, the sponsor of Lupron found prolonged or permanent impairment to ovarian function in the majority of follow-up participants in the experimental arm of the study.

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Criticizing the effect of ovarian suspension on adhesions in laparoscopic surgery for endometriosis

Sir,

We enjoyed studying the recent paper by Dr Hoo et al. (2014). Despite containing many strong points, there are some limitations, or perhaps misunderstandings on our part, which are discussed here. First of all, it seems that the ovaries, and not the women (as was claimed), underwent randomization. The authors mentioned that the cases had bilateral endometriosis, which is the main prerequisite for ovarian randomization; however, Table II shows that only 25 (48.1%) and 24 (46.2%) cases had right and left endometrioma, respectively. These are not consistent with each other; albeit, they mean bilateral endometrioma. On the other hand, if they mean bilateral endometriosis, the study needed to be randomized in such a way that each side of endometriosis involvement (that is more affected) was equal in both the suspended and non-suspended groups, which was not considered. As an additional point, a joint study has previously shown that left side endometrioma is more common (Matalliotakis et al., 2009). In addition, we are not aware of the equality of ovarian involvement, which is another prerequisite for randomization. This could also be another reason for the similar results found between the suspended and placebo groups.
In one place, the authors mentioned that 17 cases received hormonal treatment (HT), while in the next sentence the number of cases receiving HT reached 31 cases. It seems reasonable that the patients were advised to withdraw from using any hormonal substance, and that is the third prerequisite for randomization. In addition, the use of estrogenic compounds should cease before any elective surgery in order to avoid thromboembolic accidents. More usefully, they could have added up all cases that were on HT after surgery and compared their symptoms with the other 21 to be ceased that were not. Such a comparison could more accurately specify the role of HT on changes in the symptoms.

If randomization had been done correctly, we would have expected that the number of suspended and unsuspended ovaries (which were 20 and 27 ovaries, respectively), and suspended ovaries on each side (which are not mentioned in this study) would be equal.

The authors stated that the comparable rate of post-operative adhesions examined by transvaginal ultrasound in their study with previous studies which used laparoscopy indicated that their findings are reassuring. Such judgment would be true if they had used both diagnostic procedures (transvaginal ultrasound and laparoscopy) on the same cases or on a similar study population. Comparable percentages of cases with adhesions using both diagnostic procedures prove nothing. Furthermore, if we conducted a diagnostic study on the same cases and considered laparoscopy as the gold standard, the percentages of cases with false-negative and false-positive adhesions by vaginal ultrasound may be nearly equal and this could result in a comparable percentage of adhesions by the two methods. Alternatively, maybe the cases with adhesions based on laparoscopy are healthy according to a transvaginal ultrasound and vice versa.

References


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Reply: Criticizing the effect of ovarian suspension on adhesions in laparoscopic surgery for endometriosis

Sir,

We thank Mehdizadehkashi and colleagues for their interest in our study (Hoo et al., 2014). Our study was a prospective, within-group comparison, double-blind randomized control trial. This implies that comparisons were made within and not between individuals. We stated in the discussion that we decided to use this type of trial as it is considered methodologically sound and free of disadvantages that may affect the quality of parallel group trials.

We stated very clearly in our paper that the inclusion criteria were the presence of severe bilateral disease (as scored using the revised AFS staging) requiring extensive dissection of both pelvic side walls and/or rectovaginal space with preservation of the ovaries and the uterus. As severe endometriosis often occurs without endometriomas being present in the ovaries, the presence of endometrioma was not a part of the inclusion criteria. We did perform a secondary analysis, however, which showed that ovarian cystectomy did not have a significant effect on the ipsilateral adhesion rates.

With regard to hormonal treatment we made it clear that 14 women had hormonal treatment pre-operatively and an additional 17 women were treated with hormones post-operatively. Statistical comparisons were made between 31 women who had hormonal treatment (either pre- or post-operatively) and 21 women who did not receive any hormonal treatment. We found no significant difference in the adhesion rates between the two groups. We also made it clear, however, that our study was not powered to evaluate the effect of post-operative hormonal treatment on the presence of adhesions.

The number of suspended and unsuspended ovaries was the same, i.e. 52. There was evidence of ovarian adhesions in 20/52 suspended ovaries compared with 27/52 in unsuspended ovaries. These numbers therefore refer to the primary findings in our study and not to the number of ovaries randomized to intervention and non-intervention.

We accept that a second-look laparoscopy is still perceived by many as a gold standard to assess for the presence of pelvic adhesions. However, little is known about the reproducibility of laparoscopic diagnosis of pelvic adhesions, which is likely to be as operator dependent as in non-invasive diagnostic methods. Second-look laparoscopy is costly, it is associated with surgical risks and many asymptomatic and minimally symptomatic women are reluctant to undergo further surgery which confers no obvious benefit to them. As mentioned in the discussion, recent improvements in the quality of ultrasound equipment and the examination technique showed that transvaginal ultrasound examination is an accurate and reproducible test to diagnose pelvic adhesions and to assess their severity (Holland et al., 2010; Hudelist et al., 2011; Holland et al., 2013).

References