Letters to the Editor

Possibility of hidden damages with temporary uterine artery occlusion device

Sir,
I read the article of Vilos et al. (2006) with interest, but I need to give some opinions about the use of this Doppler-guided transvaginal clamp. First, it is possible that the pelvic ureter will be occluded (Al-Awadi et al., 2005) when the transvaginal clamp closes. In this case, the ureter could be damaged, and the effects of this lesion could be fibrosis or stenosis. Probably, if the control could be made at the same moment as the clamp placement, the clamp could be relocated before causing occlusion. In this way, the ultrasound control referred by the authors does not result in a secondary structural injury after 6 h compression. Second, The authors stated that with this procedure the effect of ovarian dysfunction may be avoided, but this phenomenon seems to be multiple. In approximately 10% of cases, the ovary circulation depends mainly on the uterine artery. If the uterine artery compression is performed in this circumstance, the lack of ovary irrigation could produce an ovary dysfunction, as embolization or hysterectomy cases were seen (Ryu et al., 2003). Cases of ovary dysfunction were reported after gross haemorrhages or uterine devascularization (Roman et al., 2005). In both examples, the lack of ovary irrigation could have been the main cause of secondary ovary failure. Regardless of this point, the authors have not considered that the deficient ovary irrigation after 6 h uterine artery occlusion will be the cause of secondary ovary failure. This is particularly important in patients over 35 years old who have more possibility of ovarian failure, and also those patients who consider a future pregnancy. In order to establish the risk on this point, it would be useful to measure FSH and estradiol after and before the utilization of transvaginal clamp. I completely agree with the authors that further studies are needed; maybe these comments will be useful to complement this novel study.

References

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Reply: Possibility of hidden damages with temporary uterine artery occlusion device

Sir,
Dr Palacios Jaraquemada raises concerns of ureteric and ovary damage following the treatment of women with symptomatic fibroids with temporary, Doppler-directed, transvaginal uterine artery occlusion with the flostat system (Vilos et al. 2006). At this stage in the system’s development, we have limited knowledge about the risks of either ureteric or ovarian damage. We are, however, pleased to share what we do know.

Ureter damage
From development work completed before the two pilot trials we have performed, it is known that the flostat clamp does not come into contact or apply pressure to the pelvic ureter. During direct laparoscopic observation, it was seen that the pelvic ureters are lateral to the closed clamp (Lichtinger et al., 2005).

The flostat clamp is a vascular clamp that exerts closing pressures in the range of pressures exerted by other Food and Drug Agency (FDA) cleared vascular clamps. It is not a tissue-crushing clamp. When closed, the flostat clamp folds vaginal tissue and the uterine arteries against the lateral walls of the uterus. When the bladder is empty, tissue in the trigone of the bladder could be distorted as the vaginal and vascular tissue is folded. To mitigate this possibility, we now apply the flostat clamp only with the urinary bladder full.

Ovary damage
Bilaterally occluding the uterine arteries at the level of their junction with the lateral walls of the isthmus does not entirely stop blood flow to the uterus from the uterine arteries. When temporary, transvaginal uterine artery occlusion is performed with the flostat clamp, small, unnamed arteries within the broad ligament immediately dilate proximal to the clamp and supply a trickle of flow to the ascending branch of the uterine artery. With this degree of ischaemia, no woman whom we have treated has experienced amenorrhoea, and most women treated have had relief from their fibroid related symptoms.