Ultrasound-guided hydrosalpinx aspiration during oocyte collection improves outcome in IVF

Sir,

I read with interest the manuscript by Hammadeh et al. (2008). The authors prospectively analyzed 66 women between October 1999 and June 2003 who had hydrosalpinges (HSPX) noted on ultrasound on the ninth day of ovarian stimulation and were randomized into an aspiration group on the day of oocyte retrieval and a no intervention group. The study was terminated short of the 158 patients required in July 2003 at the recommendation of the Data Monitoring Committee. This represents the largest and only randomized study to date on the positive effects of HSPX aspiration on pregnancy rate, and the investigators need to be commended for such a trial.

Few questions come to mind however. While the system in England entails referrals by other physicians for IVF and patients having to go on a waiting list for occasionally up to a year, how was the diagnosis of HSPX noted? Did these patients have an hysterosalpingogram or a prior laparoscopy, and if so, when? Would the management have been different if HSPX were noted at the time, rather than on Day 9 of ovarian stimulation when patients are close to oocyte retrieval? The authors note that 40 of 66 (61%) patients were diagnosed before treatment start, and if so, how were they diagnosed and were they offered any surgical correction of the HSPX then? Did any of the women with HSPX have any endometrial fluid collections at any point during the cycle, especially on the day of oocyte aspiration or embryo transfer (ET)? Prior publications show this subgroup of HSPX patients to have the worst prognosis (Sharara and McClamrock, 1997). In addition, of the 29 women who declined to participate in the study, what were their reasons? Also, were the HSPX measured? And what was the outcome of the three women who had fluid reaccumulation 2–3 days after oocyte aspiration? Prior publications point to the fact that some of the women who had endometrial fluid collections reaccumulated their HSPX within a matter of hours (Sharara and McClamrock, 1997; Hinckley and Milki, 2003). Those patients are unlikely to conceive with a fresh ET and are better served by cryopreserving their embryos for later transfer after surgical correction of the HSPX.

What was the outcome of women who had bilateral HSPX in that study? Were there any pregnancies? Lastly, we were the first to report on HSPX aspiration at the time of oocyte aspiration (Sharara et al., 1996). We were exposed to some criticism at the time because of the potential fear of infection. None of our 11 patients developed any infections, and the studies that followed (Sowter et al., 1997; Van Voorhis et al., 1998), including Hammadeh’s, failed to show any negative sequelae.

References

Hammadeh N, Coomarasamy A, Ola B, Papaioannou S, Afnan M, Sharif K.

Reply: Ultrasound-guided hydrosalpinx aspiration during oocyte collection improves outcome in IVF

Sir,

Thank you very much for your letter regarding our study entitled ‘Ultrasound-guided hydrosalpinx aspiration during egg collection improves pregnancy outcome in IVF: a randomised controlled trial’ (Hammadeh et al., 2008). You raised many interesting points which we address below.

Hysterosalpingogram or diagnostic laparoscopy was used to make the diagnosis of hydrosalpinx prior to starting treatment. The time of diagnosis varied from 3 to 12 months. Not all patients in the UK have to wait a
year prior to starting IVF treatment, and the criteria differ from one region to another. In the UK, early diagnosis of hydrosalpinx does not make a lot of difference because it is usually made by the patient’s local gynaecologist prior to referring them for IVF treatment. According to a postal survey by Hammadieh et al. (2004), 90% of these gynaecologists discussed the negative effects of hydrosalpinx on IVF outcome. At the initial consultation, all patients were properly counselled about hydrosalpinx, and surgical correction was offered. Some declined the surgical procedure because they did not want to have any intervention or because of the long waiting list for elective surgeries at that time in the UK. It is worth noting that a good proportion of patients were first diagnosed with hydrosalpinx during IVF treatment in spite of previous investigations which did not show signs of hydrosalpinx.

A couple of patients had accumulation of fluid in the uterine cavity when the fluid disappeared when they came back for embryo transfer. One patient was in the aspiration group and the other was in the control. Neither of them got pregnant. The main reason patients declined entering the study was concern about infection impact on treatment outcome (60%) and the rest were not interested in the study. Hydrosalpinx was measured during the study and we managed to get the volume as well.

One patient out of the three women who had fluid reaccumulation got pregnant but unfortunately had early pregnancy loss. We had pregnancy from bilateral hydrosalpinx; however, there was not much difference in the outcome between the unilateral and bilateral hydrosalpinx. It was noted that while large hydrosalpinx had less chances of getting pregnant, it was not significant.

We agree with you that hydrosalpinx aspiration during oocyte collection is a safe procedure as there was no infection morbidity associated with vaginal hydrosalpinx aspiration in all our cases.

References


Women with consistently or variably elevated early follicular phase FSH

Sir,

We read the recent paper by de Koning et al. (2008) with great interest and we think that this adds considerably to the body of knowledge on this interesting topic and is really useful to those working with and managing these clinical problems. The authors categorize some women with elevated basal FSH levels as being high initially and high in the study cycle (‘High, High’; H,H group) or high initially and normal in the study cycle (‘High, Low’; H,L group). This is a useful distinction to be aware of as many clinics still follow the view that the highest measured FSH level is the most predictive of response, say, to gonadotrophins. Recognizing the small sample size of the study, can the authors say whether women move between the categories? Do they consider that women stay as H,H or H,L or can they move between? We also wondered whether they had a view on whether inhibin B is the most useful hormone in the previous cycle to predict low FSH levels and a better potential for response in the next cycle? This would be a clearly useful indication for the measurement of inhibin B in the cycle prior to treatment for ovulation induction or for IVF in GnRH antagonist cycles.

It is interesting to know that the authors have observed anti-Mullerian hormone (AMH) was lower in both groups de Koning et al. (2008), and this may support the theory that the production or secretion of AMH by granulosa cells is not under a stringent extracellular control but under a biochemical control. Recognizing this interesting topic and is really useful to those working with and managing diseases.

Of more importance to reproductive physicians will be the clinical pregnancy rates of both groups H,H and H,L after superovulation and IVF.

References
