DEBATE continued

Hydrosalpinx and ART

Hydrosalpinges suitable for salpingectomy before IVF

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Salpingectomy seems to improve the embryo implantation rate in patients who are undergoing IVF in case of severe tubal pathology. However, many questions remain unclear, especially that of how to determine which patients would benefit from salpingectomy. The evaluation of the severity of the tubal pathology is the main point of this question. Indiscriminate salpingectomy is certainly not the answer and a more accurate evaluation of the endometrial consequences of the tubal pathology would be helpful. According to the history of each woman and specific economic considerations of each country, the moment of removing the pathological tubes could be discussed.

Key words: hydrosalpinx/IVF/salpingectomy/tubal pathology

Introduction

Recently, the results were reported of the largest prospective, randomized study on salpingectomy prior to IVF in the presence of hydrosalpinges (Strandell et al., 1999), but despite its multicentric design, this study was terminated prematurely. However, the statistical power is sufficient to demonstrate that salpingectomy could improve the outcome of IVF, especially in cases where the hydrosalpinx was enlarged enough to be visible on ultrasound and for those patients suffering from bilateral hydrosalpinx.

However, the conclusions of this article may need to be qualified in order to avoid many unnecessary salpingectomies. Those hydrosalpinges suitable for randomized salpingectomy had been described previously by hysterosalpingography or diagnostic laparoscopy. If these hydrosalpinges are enlarged enough to be visible on ultrasound, they are probably thin-walled hydrosalpinges. In this group of hydrosalpinges (in contrast to thick-walled hydrosalpinges), the results of surgical salpingostomy, reported in the literature, are usually good (Vasquez et al., 1995). The reason is that the prognosis of these hydrosalpinges is not based on the size of the hydrosalpinx itself but on the quality of the remaining tubal mucosa after opening the tube. Many studies using tubal endoscopic techniques, e.g. salpingoscopy or Falloposcopy, support this hypothesis (Dechaud et al., 1998; Marana et al., 1999). Hence, we believe that an enlarged hydrosalpinx, as diagnosed by ultrasound, is not a sufficient reason to perform salpingectomy prior to IVF. In order to improve the likelihood of pregnancy for each patient, physicians need to discriminate carefully between a hydrosalpinx which has to be removed and one which is suitable for surgical repair (Puttemans et al., 2000). Enlargement of the hydrosalpinx could probably indicate a bad prognosis but is, above all, an excellent indicator for tubal endoscopy. The appraisal of the tubal mucosa must remain the most important parameter, especially in the group of thin-walled hydrosalpinges without associated salpingitis isthmica nodosa.

Our concerns are to emphasize the difficulties in discriminating between tubal pathology and to prevent the very common attitude of removing all pathological tubes prior to IVF. In the presence of tubal pathology-associated hydrosalpinges, our recommendations are: (i) a more accurate evaluation of the tubes, (ii) surgical repair of each tube when the mucosa exhibits no adhesion or a partial atrophy, and (iii) after obtaining the informed consent from the couple, remove only those tubes with severe, extensive, or inflammatory tubal disease which are without hope of surgical repair.

If salpingectomy seems to increase the embryo implantation rate, the discussion needs to be extended to several points. The main question is: how to determine those patients who would benefit from salpingectomy in cases of tubal pathology. The evaluation of tubal mucosa is the first part of the answer. The second part is the consequence of the tubal pathology on endometrial receptivity. In the literature, only one study (Meyer et al., 1997) shows a difference in terms of integrin expression before and after salpingectomy. However, this study has to be confirmed and extended to other parameters in order to use it in clinical practice.

Another point is the definition of the inflammatory tubal pathology. If hydrosalpinges demonstrate a deleterious effect on embryo implantation, what about the proximal pathology (salpingitis isthmica nodosa) associated with the hydrosalpinx? Does the risk of endometrial receptivity dysfunction increase in the presence of tubal proximal pathology? Does the proximal pathology occluding the tube protect the endometrium? (There is no evidence in the literature on this point). This emphasizes the difficulty in homogenizing a multicentric study. Each physician has a very personal evaluation of tubal pathology according to his medical education and the history of each patient.

The last question is that of the best moment to remove the tubes. On this point, different clinical practices could be
considered, according to the medical and economic pressures of each country. Does salpingectomy have to be performed before the first IVF attempt or only in cases of IVF failure, due to the embryo not implanting?

In conclusion, tubal pathology and its management in terms of embryo implantation remains one of the main clinical problems in infertility. The answer to this question is delayed because of the difficulty in organizing homogeneous studies. Only collaborative studies (clinical and fundamental research) will allow a rational approach to this problem.

References