Anti-tubercular treatment, genital TB and infertility

Sir,

We have some concerns after reading a recent article, "Favorable infertility outcomes following anti-tubercular treatment prescribed on the sole basis of a positive polymerase chain reaction test for endometrial tuberculosis" (Jindal et al., 2012), in Human Reproduction.

The women who were selected for the study had unexplained infertility. The authors hypothesize that women with unexplained infertility who have a positive tuberculosis (TB) PCR on their endometrial biopsy have a higher pregnancy rate after being treated with anti-TB drugs, which is why anti-TB treatment (ATT) is justified for these women.

Sadly, the study design does not allow the authors to answer this question. The ideal study design would be that women with a positive PCR be randomized into two groups—those treated with ATT compared with those who were not, thus allowing firm conclusions regarding the impact of ATT on their fertility. Unfortunately, instead of doing this, the authors have chosen to compare the outcomes of women with unexplained infertility who were PCR positive versus those who were PCR negative. We consider this comparison cannot answer the study question.

Their study group (Group I) was patients who were PCR positive and their control group (Group II) was those who were PCR negative. This makes little sense, since both the groups were then treated completely differently. This was an intervention study, but if the intervention for the study and the control group was different, it becomes hard to make sense of what the intervention actually achieved.

The authors also make a number of unsubstantiated claims. They state 'studies have highlighted a very high diagnostic specificity, sensitivity and clinical correlation of TB PCR with genital tuberculosis (GTB)'. We must challenge this assertion. Traditionally, the diagnosis of GTB needs histological or microbiological confirmation of the tubercle bacillus. The correlation between TB PCR positivity and this diagnosis is poor, and TB PCR has a number of false positives. While the TB PCR test may be sensitive, the specificity is very poor.

It is well known that ATT drugs have a number of other therapeutic actions—and it is possible that some of these may promote fertility in women with unexplained infertility (whether they are PCR positive or not). Also, it is well known that a number of women with unexplained infertility will have treatment-independent pregnancies. We consider that there is a significant danger that, after reading this article, a number of doctors will start overtreating women with unexplained infertility, who have a positive TB PCR, with ATT. However, this kind of irresponsible overuse and misuse of anti-TB drugs can lead to the development of drug resistant TB strains, creating a major public health hazard.

Reference


Aniruddha Malpani and Anjali Malpani*

Malpani Infertility Clinic, Jamuna Sagar, SBS Road, Colaba, Bombay 400 005, India

*Correspondence address. info@drmalpani.com
doi:10.1093/humrep/des268
Advanced Access publication on July 18, 2012

Reply: Anti-tubercular treatment, genital TB and infertility

Sir,

We appreciate the comments of Malpani and Malpani on our paper entitled ‘Improved infertility outcome following anti-tubercular (TB) treatment (ATT) solely on the basis of positive endometrial tuberculosis polymerase chain reaction’. We would like to take this opportunity to reply to their points in turn.

(i) Randomization of PCR positive women to ATT versus no treatment is not acceptable in today’s medical practice for ethical reasons. This point was discussed in the paper. It is unethical to randomize a ‘diseased’ patient group (infertility with positive TB-PCR in this case) with to a no treatment arm, when treatment is available. The outcomes of interest could therefore only be tested by comparing an ATT-treated ‘diseased group’ with a control group also with unexplained infertility but who were TB-PCR negative.

(ii) We disagree that there is an ‘unsubstantiated claim’ in saying that enough studies have highlighted a very high diagnostic specificity, sensitivity and clinical correlation of TB-PCR with GTB. In our...