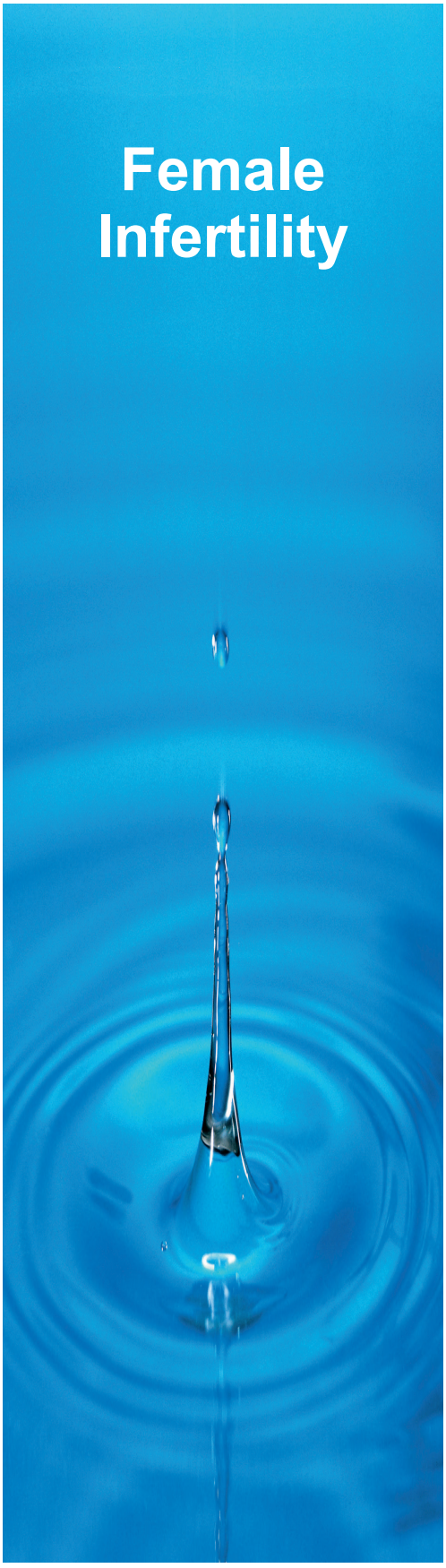

Undiscovered *Chlamydia trachomatis*-infections:

Effects on implantation and pregnancy

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The effect of *Chlamydia trachomatis* on the course of pregnancy

One marriage in seven remains involuntarily childless (1)

Infections can cause infertility (2). Half of all cases of infertility are caused by ***Chlamydia trachomatis*** (3). In extreme cases the uterine tubes become occluded by repeated and persistent infections. *In-vitro* fertilisation offers a way out of this impasse. However, here, too, the success rates could be much higher if IVF was preceded by effective diagnostic tests for infection.

Current international studies reveal the adverse influence of ***Chlamydia trachomatis*** **infection** on **implantation rate**, **pregnancy rate** and **early abortions** (4,5,6).

The demonstration of **specific antibodies** against ***Chlamydia trachomatis*** has proved to be an efficient **diagnostic marker** of chronic infection. The mere demonstration of the pathogen in cervical smears does not detect microorganisms that have ascended into the uterine tubes. Such investigations provide no information on the status of the infection (7).

Comparative investigations prove that women who have **no *Chlamydia trachomatis* antibodies** have much better prospects of successful IVF than women with positive antibody tests. Women **without *Chlamydia trachomatis antibodies*** have **higher** implantation rates, **higher** pregnancy rates, **fewer** early abortions, and **more** normal deliveries (4,5,6).

Treatment (with doxycycline) of women with antibodies against ***Chlamydia trachomatis*** given before an **IVF** cycle produces higher pregnancy rates (8,9).

The success rate of IVF does **not** depend on the presence of **occluded tubes**! The infection status is decisive. Patients who have **patent tubes** but **positive *Chlamydia trachomatis* antibody tests** are likely to have a less favourable pregnancy than women without ***C. trachomatis*** antibodies (6).

The latest discoveries show that **chronic infections** with **chlamydia** cause **immunological reactions** throughout the genital tract, and these diminish the chance of a normal pregnancy. Increased **expression of heat shock protein** has been postulated in this connection (3,10).

In women with involuntary infertility it is advisable to perform test for *Chlamydia trachomatis* infection :

- In all patients **specific *Chlamydia trachomatis*** serology will exclude a **chronic** infection with pathogens that have ascended up to the uterine tubes (the majority of cases).
- If there is any suspicion of a **florid peripheral** infection (uncommon) direct antigen detection should be carried out.
- If there are any indications of acute or chronic ***Chlamydia trachomatis*** infection (pathogen positive or antibody positive) **antibiotic treatment** should be given **before the IVF cycle** , so as to improve the prospects of a successful pregnancy.