Although being under continuous scrutiny, artificial insemination still remains a widely used treatment option for many couples. Insemination with donor semen is used in case of azoospermia, for genetic reasons and in lesbian couples and for single-parent requests. Homologous intrauterine insemination (IUI) is frequently used in couples with unexplained infertility, cervical factor subfertility and mild to moderate male subfertility. But despite the extensive literature on the subject of artificial insemination, controversy remains about the effectiveness of this very popular treatment procedure, particularly since the introduction of ICSI.

**December 13-15, 2009**, an ESHRE Campus Course entitled “Artificial insemination: an update” was organized by the ESHRE Special Task Force ‘Developing countries and infertility’, the ESHRE ‘Special Interest Group Andrology’ and the Genk Institute for Fertility Technologies. It was our aim to cover the most important issues considering artificial insemination. On the occasion of this meeting a Monograph is published covering most lectures.

Beside a brief overview of the history of artificial insemination, both human and from the veterinaries perspective, the monograph deals with many important issues in artificial insemination such as (1) evidence-based data on the effectiveness of artificial insemination, (2) the use or abuse of ovarian stimulation, (3) the value of different washing procedures and media supplements and (4) the risk factors associated to artificial insemination. In order to assess the value of IUI, results after IUI have to be weighed against expectant management, medical and surgical treatment, timed intercourse, IVF and ICSI. But this comparison should not only involve success rates but also cost-benefit, a complication rate of the different treatment options, the invasiveness of the techniques and couple compliancy.

The monograph also covers the use of semen cryopreservation in cancer patients as well as important ethical issues e.g. reproductive tourism, insemination in lesbian couples and single-parents and preconceptional gender selection.

Finally, a lot of attention has been given to the specific situation in developing countries and the value of artificial insemination in these countries.

Although IUI is a simple, non-invasive and inexpensive first-line treatment, the future of IUI will depend on our ability to control the multiple pregnancy rates which will undoubtedly be the most important challenge in the near future. We also have to convince infertility specialists to consider IUI as a first-line treatment option. If not, governments will make their own rules and recommendations, purely based on economic arguments.