

## Testicular puncture, essential to detect the origin of sterility

- ∞ From every 10 analyzed couples ( with IVF failure), 6 of them had an irregular meiosis problem.
- ∞ Testicular biopsy helps to orientate the treatment even in the most difficult cases, although many men refuse to do this test.
- ∞ This study will be presented in the European Society for Human Reproduction Congress that will take place in Rome, from the 27th to the 30th of June.

*Barcelona, 23th of June of 2010.-* More than the half (61%) of the analyzed couples with repeated IVF failures without any apparent cause have a meiosis problem that can be detected through a testicular biopsy in order to relead the treatment to the pregnancy.

Through the **meiosis**, male stem cells- with 46 chromosomes- reduce its chromosomical dotation to the half, to become sexual cells formed by 23 chromosomes. Any irregularity in the chromosomical reduction during the different cellular divisions will lead to an unsuccessful spermatozoid or to a miscarriage.

The *IVF outcome in couples with meiotic anomalies in testicular biopsy* study that will be presented in the European Society of Human Reproduction and Embriology (ESHRE) congress, by the Andrology team of Institut Marqués, was implemented by analyzing **321 couples** with repeated IVF failures that were oriented for that reason to a meiosis study, so that 321 males were undergone with a testicular puncture. 39 % of them presented a normal meiosis, 61 % an irregular one.

In order to improve the pregnancy options in such a case, a meiosis problem, specialists advise to analyze the resulting embryos obtained during an IVF Fertilization with the husband's semen, before implanting them, so that only the chromosomical healthy ones are transferred. With this technique, known as Preimplantation Genetic Diagnosis, and according to the same study, the pregnancy rate reaches the 50%. Other possibility is to use donor semen –in the more pathological cases.

## How to study the meiosis

A través de una incisión de aproximadamente un centímetro en la raíz de la bolsa de los testículos, se extrae una pequeña muestra del mismo.

Nowadays the best way to study the meiosis process with the maximal diagnosis accuracy is the biopsy of the testicular tissue. Testicular biopsy is a small operation done with local anaesthesia and without admission in the hospital. Through a small incision, about 1 cm, in the root of the scrotum, a small sample is extracted.

## The male genetic study brings to Spain couples from all over the world

What concerns the sterility diagnosis and treatment, Spain is a preferential destination. The reason that brought until now many couples to our country, was recently a legal matter, because of the prohibition of some techniques in many countries. However, at the present, almost the half of the couples are affected by a long sterility situation or arrive after some failures, in order to try other diagnosis methods as the meiosis study. This technique has not been developed in many countries because of the lack of Specialized in Assisted Reproduction Andrological Unites. In these cases, the only test required is a seminogramme, which does not give any chromosome or DNA chains information.

This is the reason why these couples, after many IVF failed attempts in their countries and with a physical, emotional and economic debilitation, decide to come to Spanish centres specialized in the study of the male factor. Most of them will require also egg donation because the woman is already approaching the 40, a critical age, where the fertility rates are very low. *“With a diagnosis on time would not be required an egg donation because the cause of the failure was on him not on her”* states Prof. Juan G. Alvarez, Scientific Director of Institut Marquès and professor in Reproductive Biology in Harvard Medical School.

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