

# OVARIAN STIMULATION IN ASSISTED REPRODUCTION TECHNIQUES

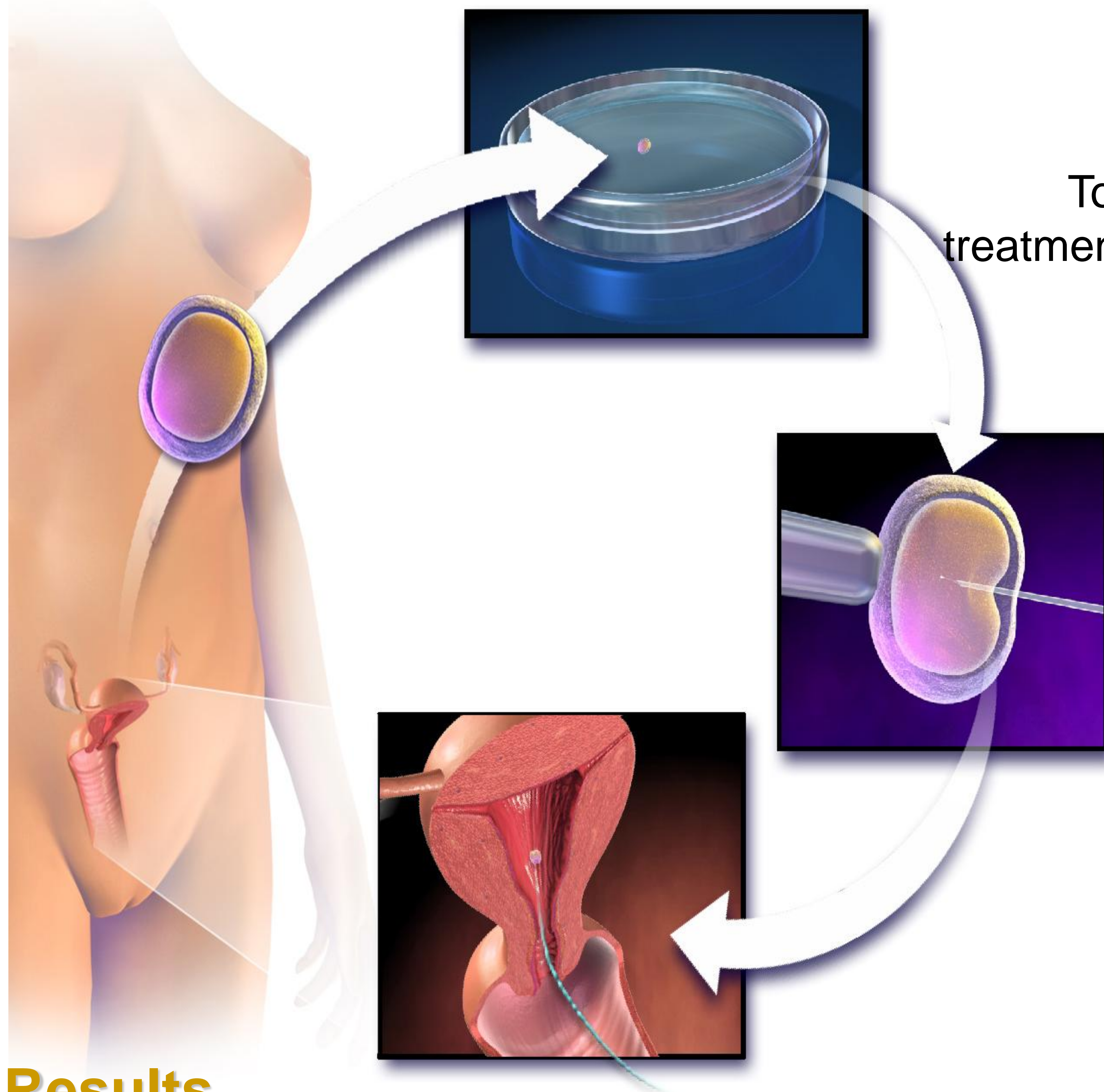
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## Background:

In Europe it is estimated that almost 10% of couples currently experience a problem of sterility, of whom only 22% receive medical care. There are various techniques of assisted reproduction ovarian stimulation used to induce ovulation in women with signs of hormonal dysfunction: led intercourse, intrauterine insemination (IUI), in vitro fertilization (IVF) or intracytoplasmic sperm injection (ICSI).



## Objective

To analyze effectiveness of ovarian stimulation in the treatment of human infertility by assisted reproduction units

## Methodology

We conducted a systematic review of the published literature on the effectiveness of ovarian stimulation in human infertility in reference sources such as PubMed, MEDLINE, Embase, Cochrane Library, etc. We used as search terms " assisted reproduction", " ovarian stimulation", " infertility", " hormone" and "treatment " and we selected those current publications, with quality designs and proven results.

## Results

A total of 86 publications met the criteria for literature search. Thus, in these publications it was deduced that ovarian stimulation is currently based on monotherapies or combination therapies with the following drugs: Ovulation inducers (hypothalamic antiestrogens), gonadotropins and/or the like (antagonist/agonist) of GnRH (gonadotropin-releasing hormone).

Efficacy rates of any assisted reproduction technique depends on several factors, the most important maternal age for egg quality. However, if we analyze the effectiveness by technique, it was observed that the IUI was more effective with ovarian stimulation with gonadotropins against hypothalamic antiestrogens (OR: 1.8) or natural cycle (OR: 2.1) (Verhulst, 2006). So, if we compare the success rate of both techniques treated with gonadotropins, pregnancy rates in Europe of 12% was observed in IUI compared to 31% in IVF/ICSI with own eggs and considering the average for all age groups (SEF, 2011). These data improves with the number of attempts up to four per patient.

## Conclusions:

If we study the success rates of hormone therapy by age group in each of the assisted reproduction techniques, we see a proportional decrease in ovarian reserve associated with maternal age, being more marked this reduction in less effective techniques such as IUI. It would therefore be necessary to adapt these therapies to this clinical setting and not keep medical protocols that carries a high risk of irreversible sterility.