



CAG polymorphism length in the androgen receptor is associated with ovarian reserve but not with ovarian response.

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In assisted reproduction treatments, ovarian stimulation is a key to the success of the treatment itself. In most cases the ovarian response is adequate; however for 9-24% of cases, the ovarian response is insufficient. These patients are called poor responders. The diagnosis and treatment to be performed for these patients should be multidisciplinary.

Recently, we are developing new ovarian stimulation protocols based on the use of androgens to improve ovarian response in poor responder patients. Androgen action is mediated by its receptor, the androgen receptor (AR). A variant (CAG polymorphism in exon 1) in that gene, which modulates its activity and thus its effect. In this communication we have studied the ovarian response and ovarian reserve based on that variant. Research results have shown that this variant is associated with ovarian reserve but not with ovarian response.

This finding helps to explain which could be the mechanism of action of androgens in women and its importance in ovarian stimulation protocols, as their action would be producing in upstream precursors with increased recruitment of follicles that formed the basis for ovarian stimulation. The polymorphism of the AR gene play an important role in the ovarian aging process and might be therefore one of the factor that determine the ovarian reserve.

This research is the result of a joint effort of different professionals (gynecologists, embryologists, geneticists) that are part of Instituto Bernabeu Poor Response Unit and we can treat each patient individually to offer the best results.

