

# THE ETIOLOGY AZOOSPERMIA

OULD KABLIA..S

## INTRODUCTION

Azoospermia is identified in approximately 1% of all men and in 10 to 15% of infertile males . A precise diagnosis of azoospermia and systematic evaluation of the patient to establish the disease etiology are needed to guide appropriate management options. The development of intracytoplasmic sperm injection (ICSI) as an efficient therapy for severe male factor infertility has become an appropriate treatment for the majority of male reproductive tract deficiencies.

## OBJECTIFS

The aim of this study was to evaluate the hormonal profile and the etiology of non obstructive azoospermic men.

## MATERIALS

We conducted a prospective study from 2014 to 2015 .Twenty four azoospermic patients were screened for medical history , physical exam , measurements of serum total testosterone ,LH and FSH ,PRL , sperm analysis , genetic testing ,karyotype and Y chromosome microdeletion ,and sometimes MRI if necessary. None of them was taking any medications.

## RESULTS

The mean age of our patients was 36.13 years ; 28.5% have between ( 25-34 years) , 33.33% (35-44 years ) and 38.10 % (45-54 years).71.43% of our patients live far from their wives .they get married since more than 2 years for the majority and 10 years for a third (33.33%)The mean FSH was 24.18+/-4.64UI/l ,mean testosterone 12.21+/-2.10 nmol/l , mean LH =9.82+/-2.27 nmol/l and mean prolactinemia =517.68+/-81.34  $\mu$ UI/ml. FSH was high in 13 cases : four cases of cryptorchidism ,one case of microdeletion AZFc ,one case of thalassemia one case was a cook ,and 2 cases work in radar. For the four remaining no etiology was found.The FSH was low in 4 cases : two pituitary adenoma , one hypogonadotropic hypogonadism and one probably mutation of the FSH gene. Finally the FSH was in normal range in 7 cases : one case of empty sellae , one hyperprolactinoma ,one cryptorchidism and one 47 XYY male syndrome and the 3 remaining idiopathic. In the case of hypogonadotropic hypogonadism gonadotrophin were effective and in the hypergonadotropic hypogonadism , the testicular biopsy found spermatozoa in five (33.3 % ) cases and 2 wives get pregnant by ICSI the others are attending.

## DISCUSSION

As we work in an endocrine unit all of our azoospermic patient present with a non obstructive azoospermia. The main etiology of azoospermia was testicular (62.5 % ) and pretesticular in 25 % and idiopathic in other cases . As the majority of the patient meet rarely their wives (because of their profession ) the diagnostic of azoospermia is late. For the pretesticular azoospermia the use of gonadotrophins is effective. However until recently, it was assumed that men with non-obstructive azoospermia were untreatable. The only options offered to these couples to have children were the use of donor spermatozoa or adoption.Today we know that direct evaluation of testis biopsy specimens often demonstrates sperm in men with non-obstructive azoospermia, despite severe defects in spermatogenesis. We refer some of our azoospermic patient in a reference center in order to conducte a testicular biopsy. For a third of them the biopsy was positive which proves that elevated FSH don't influence the results.

## CONCLUSION

In the past, men with azoospermia were classified as infertile, and a sperm donor was initially considered one of the best options for conceiving. Currently, the knowledge that many causes of azoospermia can be reversed is admitted from the medical profession. Therapeutic perspective as testicular sperm extraction and ICSI have changed the prognosis of azoospermia.

### Références:

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