

# Impact of Varicocele Cure on Spermogram Parameters and Fertility

Nizar Cherni<sup>1</sup>, Abdallah Chaachou<sup>1</sup>, Wael Ferjaoui<sup>2,\*</sup>, Samir Ghozzi<sup>1</sup>, Mohamed Dridi<sup>1</sup>

<sup>1</sup>Department of Urology, Military Hospital of Tunis, Tunisia

<sup>2</sup>Department of General Surgery, Military Hospital of Tunis, Tunisia

## ABSTRACT

Our study aims to evaluate the impact of varicocele cure on the parameters of the spermogram and to look for prognostic factors.

**Keywords:** Varicocele Cure, Spermogram Parameters, Female Fertility, Gynaecological Pathology.

## INTRODUCTION

Varicocele is a common anomaly found in 15% of the general population and 35% of infertile men. Currently, the management of a patient with a varicocele is unresolved. The therapeutic indications remain controversial.

## MATERIALS AND METHODS

Retrospective and analytical study of 50 patients operated for varicocele by iliac approach, in the urology department of Monastir, during a period of three years (2006-2008). Patients with a varicocele with a normal spermogram, are excluded from this study. The elements that were analysed were age, genital history, clinical examination data and a pre- and postoperative spermogram (3 months).

## RESULT

The mean age of our patients was 31 years (14-46 years), of which 7 cases had a history of urethritis.

Mean duration of infertility was 4.6 years with extremes ranging from 2 to 11 years.

The FSH assay performed in 6 cases was normal.

Spermogram improvement in 11 of 19 cases with a sperm count of over 5 million and all with secondary infertility.

Pregnancy was noted in 9 patients or 18% of cases.

## DISCUSSION

As far as spermogram parameters are concerned, varicocelectomy has a beneficial effect on the count. This effect is more marked if the preoperative count is above 10 million/ml. Mobility and morphology can be improved although it seems that morphology improves better if the count improves, however an isolated improvement in morphology can

## Vol No: 06, Issue: 01

Received Date: March 24, 2023

Published Date: April 26, 2023

## \*Corresponding Author

**Dr. Wael Ferjaoui**

Department of General Surgery, Military Hospital of Tunis, Tunisia, Tel: +216 52430099, ORCID: 0000-0002-4279-9370

**E-mail:** farjaouiwael4@gmail.com

**Citation:** Ferjaoui W, et al. (2023). Impact of Varicocele Cure on Spermogram Parameters and Fertility. Mathews J Surg. 6(1):18.

**Copyright:** Ferjaoui W, et al. © (2023). This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

be observed. In our series the improvement in sperm count was noted in patients with moderate oligospermia and secondary infertility.

Other studies consider that the duration of infertility before the operation has a negative relationship with the improvement of the postoperative spermogram.

To our knowledge, there are only two randomised controlled studies of men with palpable varicocele with sperm abnormality on spermogram and normal female fertility.

One of these studies found no significant improvement in pregnancy rate after varicocele treatment but a significant improvement in testicular volume and sperm parameters compared to untreated control patients.

The other study, using a cross-over design, showed a statistically significant improvement in fertility after varicocele treatment. The conception rate in couples whose men had undergone varicocele treatment was 60% in the first year after the procedure compared to only 10% in the control group of untreated varicocele patients.

The other study, using a cross-over design, showed a statistically significant improvement in fertility after varicocele treatment. The conception rate in couples whose men had undergone varicocele treatment was 60% in the first year after the intervention compared to only 10% in the control group of patients with untreated varicocele.

A number of data suggest that impaired fertility due to varicocele occurs in infertile couples only if female fertility is impaired or if other male infertility factors are associated. The impact of obesity on male fertility is less well documented than in women. However, reported biochemical and spermogram abnormalities are indeed associated with male hypofertility: an American study of 1329 couples included in the Agricultural Health Study found that the adjusted odds ratio of infertility according to partner BMI was 1.12 (95% CI = 1.01-1.25) [1-4].

## CONCLUSION

The benefit of varicocele cure on infertility is currently debated, and must take into consideration the associated gynaecological pathology in the woman. Patients who have an improvement in spermogram parameters are those with moderate oligospermia and secondary infertility. Obesity and smoking may affect the postoperative results.

## REFERENCES

1. Kbaier I, Binous MY, Attyaoui F, Nouira Y, Horchani A. (2002). La ligature sous coelioscopie de vaisseaux spermatiques dans le traitement de la varicocèle : à propos de 129 interventions. *Annales d'urologie*. 36(5):329-333.
2. Dohle GR, Colpi GM, Hargreave TB, Papp GK, Jungwirth A, Weidner W, EAU Working Group on Male Infertility. (2005). EAU guidelines on male infertility. *Eur Urol*. 48(5):703-711.
3. Male Infertility Best Practice Policy Committee of the American Urological Association, Practice Committee of the American Society for Reproductive Medicine. (2004). Report on varicocele and infertility. *Fertil Steril*. 82(Suppl 1):S142-S145.
4. Peterson AC, Lance RS, Ruiz HE. (1998). Outcomes of varicocele ligation done for pain. *J Urol*. 159(5):1565-1567.