



Varicocelectomy for infertility – Does age matter?

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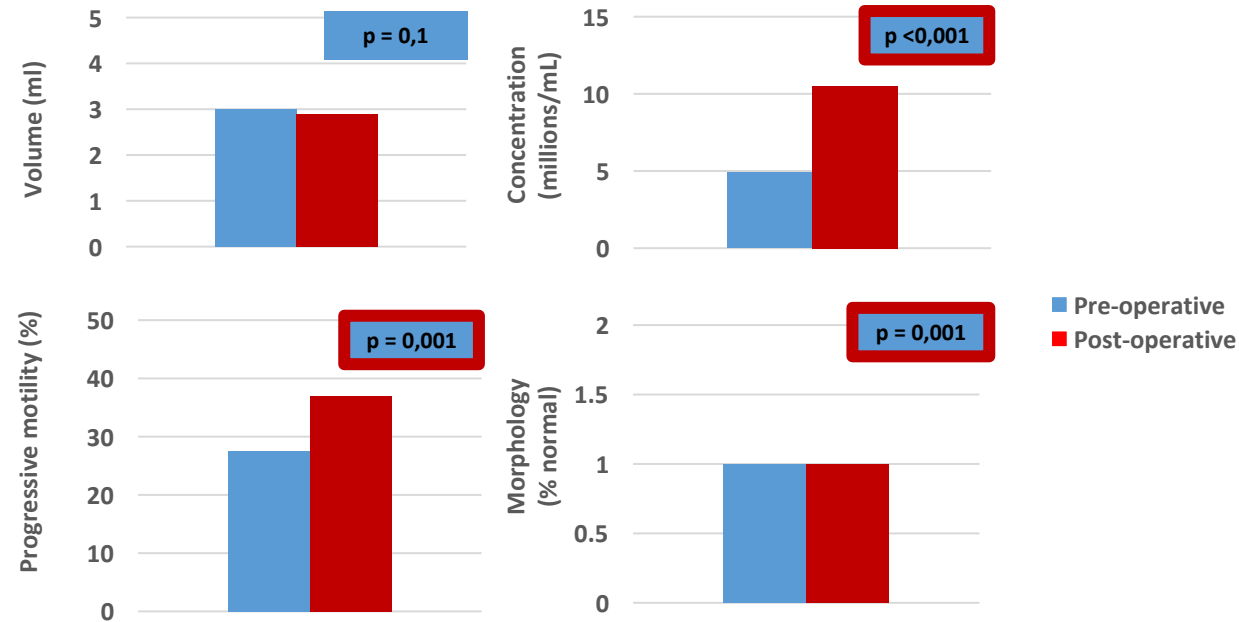
Introduction and Objective

- **Varicocele** in 15% of the general population
 - 35% of primary infertility and 70-81% of secondary infertility
 - **the most common cause of male infertility**
- Its correction **improves semen parameters and pregnancy rates**
 - still controversial if varicocelectomy has the same efficacy in older males
- With development of assisted reproductive techniques (ART), these are more likely to be offered as primary treatment for infertility
 - **Delay in the diagnosis and treatment** of male infertility factors, including varicocele
- Evaluate the **efficacy of varicocelectomy** in sperm parameters and pregnancy rates
- **The effect of age on the outcomes of this procedure**

Methods

- Retrospective analysis of **all cases submitted to varicocelectomy due to infertility** between June 2012 and June 2019
- **Exclusion criteria:** other significant contributors of infertility, and infertility without sperm changes or with subclinical varicoceles
- **Stratification of the population into two age group**, using the mean age of the overall population
 - Differences on the outcomes between them

Results I



42 patients, mean age 33,3±5,1 years.

Overall, **improvement in sperm concentration (p<0,001), progressive motility (p=0,001) and morphology (p=0,001)**

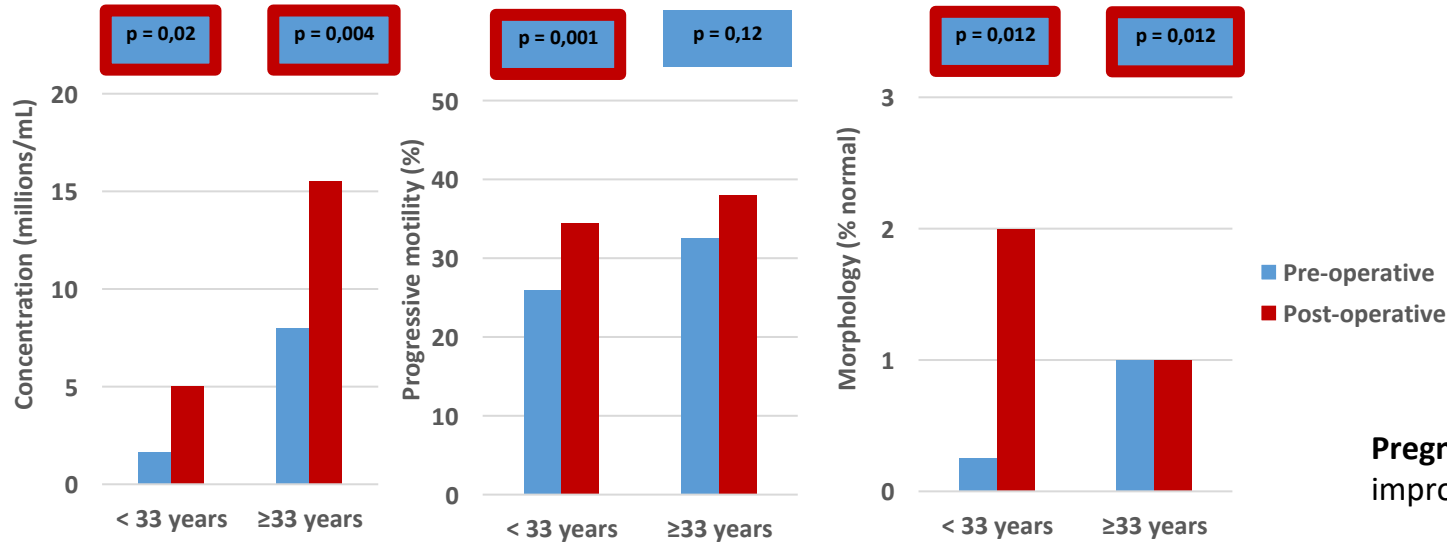
In morphology, higher number of males without any change (n=20, 48 %)

No differences related to sperm volume (p=0,1)

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Results II



Stratifying by the mean age (<33 vs ≥33 years):

No differences in the number of patients who presented any kind of improvement in semen parameters (67% vs 58%; $p=0,582$)

Younger group:

- more pronounced improvement in the sperm concentration (increase of 203%; $p=0,02$ vs 94%; $p=0,004$)
- the only with improvement in motility (increase of 33%; $p=0,001$).

Pregnancy rate overall 35%, the majority (71%) from males with improvement in sperm parameters.

Younger group:

- higher rate of deliveries (60% vs 20%; $p=0,006$)
- even after adjusting for the spouse age (OR= 5,55; $p=0,035$)

Conclusions

- Varicocelectomy is an effective technique in **the improvement of sperm parameters**
 - **the younger males** benefit the most.
- **Younger age is associated with higher success in pregnancy rate** and should be employed early.

