

649: Cap Score Utility in Treatment of Varicocele Associated MalRetrospective analysis: Cap-Score, and SA metrics were compared in 7 men before and at least three months after varicocelectomy e Infertility

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Objective

Varicocele is a known cause of male infertility. Improvement after varicocelectomy is often assessed by changes in semen analysis (SA). However SA lacks a functional test of fertilizing ability. Cap-Score™, which reports the percentage of sperm that can capacitate, functionally assesses male fertility and can prospectively predict pregnancy. In this study, we examined the effect of varicocelectomy on SA, and Cap-Score, and then applied results to post procedure counseling.

Design

Retrospective analysis: Cap-Score, and SA metrics were compared in 7 men before and at least three months after varicocelectomy

Materials and Methods

Semen specimens for analysis were collected and assessed according to WHO 5th Edition guidelines. Volume, concentration, motility and morphology were assessed in a single facility. With respect to Cap-Score, fixed samples were initially processed on site and then sent to Androvia LifeSciences for Cap-Score determination.

Results

After varicocelectomy, 71% (5/7) men had a significant increase in Cap-Score; average increase was $12.6 \pm 1.0\%$. 2 men had an insignificant change. Significance in improvement was assessed by paired samples t-test ($p=0.02$). With respect to semen analysis, 3 men had improvement in sperm concentration, motility and morphology, 1 in motility and morphology, 1 in concentration and morphology, and one in morphology only. Overall, 6/7 men (86%) had some improvement in semen parameters.

Conclusions

In this limited sample, 5 (71%) of men who underwent varicocelectomy had significant improvement in Cap-Score. This corresponded to a 91% increase, from 23 to 44%, almost doubling the probability of generating a pregnancy over three cycles, as predicted by Cap-Score sperm function assay. These men were encouraged to pursue conservative options including natural conception and or IUI. Whereas the 2 men who did not have a significant change were advised to pursue IVF-ICSI, including one of the men who had improvement in semen parameters. Cap-Score can both serve as an independent indicator of the need for treatment and also can stratify post procedure care in the setting of male infertility diagnosis and therapy.

Support

None

Disclosure

None