

The effect of Saffron on semen analysis in infertile men after varicocelectomy

Sepehran E., M.D., Ahmadi Asr Badr Y., M.D.

Department of Urology, Imam Reza Hospital, Faculty of Medicine, Tabriz University of Medical Sciences

Background

A varicocele is an abnormal enlargement of the pampiniform venous plexus in the scrotum. This condition is one of the most common causes of infertility. Although the exact mechanism of this connection is unknown, a potential role of reactive oxygen species (ROS) on sperm has been postulated. On the other hand, crocus sativus (saffron), which is a perennial herb of the Iridaceae family, is known for its antioxidative prosperities. Few previous studies have been found usefulness of saffron in enhancing semen parameters of fertility, but the data are scarce and inconclusive. The present study sought to examine the effect of saffron on semen analysis in infertile men after varicocelectomy.

Methods & Materials

In this clinical trial, a total of 48 infertile candidates for varicocelectomy were recruited from three teaching center during an 18-month period of time. They randomly received oral saffron (60 mg) once every other day for 6 months (n=27) or placebo (n=21) using identical investigator-prepared capsules. Percent changes of parameters of semen analysis at baseline and after 6 months were compared between the two groups. Possible side effects were also documented.

Results

The two groups were comparable in terms of their demographic data and mean duration of infertility ($p>0.05$). The mean percent changes of semen volume, sperm count, sperm motility including M1+M2 and M1+M2+M3, and sperm morphology at the endpoint were 29.87%, 58.94%, 37.10%, 75.47%, and 25.12% in the saffron group, and 30.45%, 137.55%, 20.70%, 116.25%, and 58.76% in the placebo group, respectively. No significant differences were found between the

two groups in terms of parameters of semen analysis. There was only 1 patient in the saffron group with urinary symptoms (p=0.48).

Conclusion

According to our findings, saffron has no effect on parameters of semen analysis in patients with infertility due to varicocele after varicocelectomy. At the same time no significant side effects occurred.

Keywords: *Saffron, Varicocele, Semen Analysis.*