

Comparison of ICSI cycles outcome in two groups of patients with endometriosis with and without sclerotherapy

Alborzi S¹, Alborzi M²

¹Shiraz University of Medical Sciences, Head of the Gynecologic Endoscopy Division- Laparoscopy Research Center- Department of Obstetrics and Gynecology- Faculty of Medicine, Shiraz, Iran.

²Shiraz University of Medical Sciences, Division of Infertility- Infertility Research Center- Department of Obstetrics and Gynecology- Faculty of Medicine, Shiraz, Iran.
e-mail: alborzisa@gmail.com

Objective: In this study we aim to evaluate the effectiveness of aspiration ethanol sclerotherapy (AEST) on treating endometrioma and to compare the outcome of their intracytoplasmic sperm injection (ICSI) cycles with the ICSI cycles of patients who previously underwent laparoscopic surgery for endometrioma and deep infiltrative endometriosis (DIE).

Materials and Methods: This randomized clinical trial study was performed on 61 patients with infertility and endometrioma, divided into two groups. In group 1, 31 patients with endometrioma received ICSI cycles and simultaneous sclerotherapy without undergoing previous surgery. In group 2, 30 patients with endometrioma were treated by laparoscopic surgery and then received ICSI cycles. For all the patients controlled ovarian stimulation with ultra-short GnRH agonist flare up and GnRH-antagonist protocol was used. Oocyte retrieval was done in both groups under general anesthesia. In group 1, ultra-sound guided aspiration of endometrioma and ethanol sclerosis with ethanol 96% was performed at the same time. ICSI was performed on all oocytes which were at least in MII stage. Number and quality of oocytes, implantation rates, pregnancy rates and recurrence of endometrioma were compared between the two groups.

Results: The number of retrieved oocytes were 216 in group 1 (mean 6.96) and 146 (mean 4.8) in group 2. The number of mature oocytes were 184 in group 1 (85%) and 124 (84%) in group 2. The implantation rate for group 1 was 5.03% and 6.4% for group 2. The pregnancy rates were 22% and 20% for group 1 and group 2 respectively. Implantation rate in group 1 was 4.5% in fresh embryo transferred cycles versus 5.2% in freeze embryo transferring. No abortions occurred in any of the patients. One-year follow-ups revealed that none of the patients in group 2 showed evidence of recurrent disease but in one-third of patients in group 1, recurrence of endometrioma was detected.

Conclusion: Although the difference in number and quality of oocytes, implantation rates and pregnancy rates between the two groups was not significant, persistence and recurrence of disease were higher in patients in group 1. This suggests that although sclerotherapy for endometrioma does not negatively affect implantation and pregnancy rates, recurrence of endometriosis is higher compared to laparoscopic surgery. Similar implantation and pregnancy rates between fresh and freeze embryo transfer cycles in group 1 showed that fresh embryo transfer can be performed right after sclerotherapy.

Keywords: Endometrioma