RECURRENT AND IVF OUTCOME IN PATIENTS WHO UNDERWENT SECOND-LINE CONSERVATIVE SURGERY FOR MODERATE TO SEVERE ENDOMETRIOSIS

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Objective: To evaluate the cumulative recurrence rate of pain and ovarian endometrioma and investigate the IVF outcome in patients who underwent a second-line conservative surgery for recurrent endometriosis.

Methods: Retrospective cohort study

Patients: A total of 80 patients who underwent a second-line conservative surgery for recurrent endometriosis between January 2003 and January 2009.

Intervention: Completion of questionnaire, ultrasound scan and IVF cycles compared with controls.

Main Outcome Measures: Cumulative recurrence rate of pain or endometrioma, controlled ovarian stimulation (COS) results and IVF outcome.

Results: Fifty-nine patients (73.8%) had recurrence of at least moderate or severe pain or endometrioma on ultrasound scan after second-line surgery. The cumulative recurrence rate of pain at 12, 24, 36, 48 and 60 months after second-line surgery were 21.3, 37.5, 43.8, 52.5 and 58.8%. The cumulative recurrence rate of endometrioma on ultrasound at 12, 24, 36, 48 and 60 months after second-line surgery were 12.5, 28.8, 38.8, 48.8 and 56.3%. Total dose and days of gonadotropins administered were significantly higher in the second-line surgery group than in the primary surgery group (P< 0.001, P<0.001). The numbers of oocytes retrieved, mature oocytes and grade 1 or 2 embryos were significantly lower in the second-line surgery group (P<0.001, P<0.001, P=0.001, respectively). Clinical pregnancy rate per cycle was also significantly lower in the second-line surgery group (P=0.030).

Conclusions: The cumulative recurrence rates of pain and endometrioma after second-line conservative surgery appears to be high and increase as the follow-up period gets longer. IVF outcome after second-line surgery may be substantially worse than after primary surgery in infertile patients with moderate or severe endometriosis.