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Methods

64 endometriomata were treated in 49 consecutive patients identified retrospectively from theatre records of a single operating surgeon, from January 2013 to December 2017. Electronic hospital records were used for data collection and to search for re-attendance for imaging or gynaecology review within the whole health board. The maximum time from treatment to clinical review was 66 months. All patients included in study were treated using plasma energy device, PlasmaJet.

Women in the study had either unilateral or bilateral endometrioma and various degree of pelvic peritoneal endometriosis including deep infiltrating endometriosis.

Introduction

The current recommended treatment of endometriomata is surgical excision. Excisional treatment is associated with decrease in ovarian reserve compared with ablation techniques however it is associated with a decrease in recurrence rates of endometrioma and endometriosis related pain. The PlasmaJet system uses argon plasma to ablate, coagulate and cut tissues up to a depth of 30mm; when used to ablate ovarian surface the sparing effect on ovarian parenchyma compared with excision would be around 90%.

Cohort demographics

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Recurrence of pain symptoms

Patients with unilateral endometrioma
- No pain symptoms
- Recurrence of pain

Patients with bilateral endometrioma
- No pain symptoms
- Recurrence of pain

Discussion

Recurrence of endometrioma in our study is comparable with published rate of recurrence after excisional treatment (14-17%). Plasma energy ablation may have lower recurrence rates than other ablation techniques.

Considering sparing effects on healthy ovarian tissue this ablation technique may be particularly suited to women with fertility concerns.

Formal studies with long term follow up are required.

References

1) Postoperative Recurrence and Fertility after Endometrioma Ablation Using Plasma Energy: Retrospective Assessment of a 3-Year Experience
   Roman, Horace et al.
   Journal of Minimally Invasive Gynecology, Volume 20, Issue 5, 573 - 582

2) Vaporization of ovarian endometrioma using plasma energy: histologic findings of a pilot study
   Horace Roman, et al.