

## Short communication

# Is operative laparoscopy safe in ovarian endometriosis?

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### Abstract

This short communication describes the delayed onset of premature ovarian failure (POF) in some young patients, between 5 to 24 months after operative laparoscopy for ovarian endometriosis. This complication apparently does not have a link with traditional risk factors for POF. In view of this observation, further and consistent clinical investigations are necessary to seek an explanation for this possible iatrogenic effect, which is of particular concern to young patients who are referred for video laparoscopy as a treatment for ovarian endometriosis.

**Keywords:** endometriosis, laparoscopy, ovary, premature ovarian failure

Laparoscopy, introduced in 1979 (Semm, 1979), is regarded as the gold standard in the investigation and treatment of ovarian endometriosis. However, although it is a minimally invasive surgical technique, laparoscopic treatment that involves stripping endometriotic lesions from the ovary has been associated with a significant risk for premature ovarian failure (POF), corresponding to a rate of 2.4%, and to early onset of POF (Busacca *et al.*, 2006) after the treatment. The possibility of a late onset of this syndrome has been described in 10 patients, ranging from 5 to 24 months after treatment (Di Prospero and Micucci, 2008). These patients described typical symptomatology of amenorrhoea and hot flushes. The investigation excluded a family history for POF and the concomitant presence of Hashimoto thyroiditis and Addison disease, clinical conditions frequently associated with spontaneous POF.

An alteration of the immune response has been assumed in both endometriosis and POF (Giudice *et al.*, 1988; Muechler *et al.*, 1991) but a clinical link between the two conditions has not been described.

The possibility of a late onset of POF after operative video laparoscopy (VLS) generates some questions that may not have a single explanation (such as direct tissue damage), but may also involve some aspects of the procedure, such as cystectomy, drainage, coagulation or laser vapourization, local and intra-abdominal temperature, immunological, genetic and endocrinological factors.

Further and consistent clinical investigations are necessary to explain this iatrogenic effect and to re-evaluate the reproductive safety of ovarian VLS surgery.

Patients who are candidates for VLS treatment for bilateral

cystic endometriosis of the ovaries should be informed that they have a small, but concrete risk of developing an early or late onset of POF after the procedure; this is of particularly important concern to young patients.

### References

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