Four Years Experience with the Carbondioxide Laser Laparoscope in the Treatment of Endometriosis

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Since October 1982, we used the laser laparoscope on 260 patients at St. Luke's Hospital, Guildford, Surrey, England, without any complications due to the intra-peritoneal use of laser energy.

Endometriosis was present in 119 of the patients causing pain alone in 77, infertility alone in 18 and both pain and infertility in 14. These patients were followed up for 1-3 years and 73 % were pain free. Patients with infertility with no other contributing factors had a 71 % pregnancy rate resulting in three miscarriages, one neonatal death at 28 weeks and 15 live births.

Ultrastructural Changes in Endometriotic Implants Treated with Danazol, Gestrinone or Duphaston: A Comparative Ultrastructural Study

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The ultrastructure of endometriotic implants was studied in 70 infertile patients treated with danazol, gestrinone or duphaston. Two types of therapy were studied: first, a 4-month therapy using either danazol (600 mg daily, 12 patients), gestrinone (2.5 mg twice or thrice weekly, 20 patients) or duphaston (20 mg daily, 12 patients); second, a short-term therapy during only 2 months using gestrinone (1.25 mg daily, 18 patients) or duphaston (60 mg daily, 8 patients).

At the end of therapy, biopsies were obtained from remaining ovarian and/or peritoneal implants during a second-look laparoscopy. They were immediately fixed in cold (4 °C) phosphate-buffered (pH 7.2) glutaraldehyde 1.25% and further processed for TEM as previously described [Cornillie et al., Pathol. Res. Pract. 180: 647, 1985].

The response to therapy in all post-treatment biopsies revealing endometriotic tissues was graded as follows: (grade 0). No therapy response with focal proliferation and/or secretion still present; (grade 1) moderate therapy response with arrest of growth and secretion (i.e. undifferentiated aspect); (grade 2) good therapy response with marked involution and degeneration.

Our ultrastructural comparison revealed that in all types of therapy studied a good response to therapy was always substantiated by cell involution and necrosis due to

enhanced lysosomal activities. Furthermore, increased lipid accumulation was seen during danazol treatment only.

Focal differences of the extent of the microvascular supply in endometriotic implants may explain the marked differences of the response to therapy between different implants in the same patient.