

Helica Thermal Coagulator

Stage I & II Endometriosis
treatment with the Helica
T.C.

Dr. P. Dewart

Summary:

A 50% successful treatment 14 months after treatment with the
Helica TC and 94% recommendation to family and friends.

West Lothian Healthcare NHS Trust

St. John's Hospital at Howden

Howden Road West, Livingston EH54 6PP. Telephone: 01506 419666

LAPAROSCOPIC TREATMENT OF STAGE I AND II PELVIC ENDOMETRIOSIS USING HELIUM BEAM COAGULATION

Dewart P.J & Dewart H.B.

St. John's Hospital, Livingston, Edinburgh, Scotland

The use of the Helica T.C. Coagulator to treat endometriosis was first reported by Donaldson & Hawthorn (1995). An ionised beam of helium is used to fulgurate endometriotic deposits. The low power required to ionise the helium beam (only 2-10 watts) results in a predictable superficial fulguration to a depth of 1-2mm which minimises the risk of damage to underlying and surround structures. The effect is similar to the CO₂ laser, but at significantly less cost.

The paper reports on the follow-up of the 39 patients with symptomatic Stage I or II endometriosis treated at St John's Hospital with the Helium Ion Thermal Coagulator (Helica T.C.) during 1996 and 1997, five having being treated twice. The operative procedures and immediate post-operative recoveries were uncomplicated, 32 of these patients were discharged the same day, the remainder were all discharged within 24 hours of endoscopic treatment. The patients were all sent a questionnaire to complete asking about their symptoms, whether they had conceived since the treatment, and whether or not they had received any further medical or surgical treatment since their Helium Beam Coagulation. The mean age of the patients was 31.5 years (range 21-49 yrs).

Thirty-one patients completed follow-up questionnaires, a response rate of 79.5%. Seven of these patients had received further medical treatment following their initial Helium Ion Beam Coagulation therapy, these were therefore considered to have either had a recurrence or that the initial therapy had failed. Five patients had repeat Helium Beam Coagulation therapy but no further medical or other surgery since that time. The mean length of time between laparoscopic treatment and returning to work/normal activity was only 12 days (range 3-42 days).

Considering the 24 patients who had responded to treatment, the mean length of follow-up was 14.1 mths (range 4-25 mths). When asked specifically if they felt they had sustained improvement in the severity of their pelvic pain, 12 noted a reduction in severity of dysmenorrhoea, 19 had less deep dyspareunia and 16 were less likely to avoid sexual intercourse because of dyspareunia. Eleven patients who had previously experienced pain of such severity as to require time off work reported they had required less sick leave. Twenty-nine of the 31 patients who had received the Helium Beam Coagulation therapy said they would recommend this type of surgical treatment to friends or family members.

Endometriosis is a very difficult condition to treat because of the chronic and recurrent nature of the symptoms, the severity of which do not appear to correlate with the amount of disease that can be visualised at laparoscopy, the only definitive way of confirming the diagnosis. The problem is further compounded by lack of objectivity in assessing symptomatology, which relies upon the subjective nature of the perception of pain severity, with considerable individual variation. In this study,

initial follow-up at 3-4 months of the 39 patients treated suggested that 34 patients (87%) had responded to the treatment. However, the subsequent questionnaire sent out to these patients on average 14 months after treatment, revealed that at least 12 had had a further course of treatment, and of those who have not been treated again a further 5 of the patients were experiencing subjectively severe symptoms of pelvic pain, dysmenorrhoea and dyspareunia and are likely to require further treatment in the near future. These figures suggest that just over half of patients are still significantly benefiting from the treatment at an average of 14 months post operatively, which is consistent with alternative methods of treating endometriosis which is known to have a high recurrence rate.

The Helium Beam Coagulation treatment was tolerated very well by all patients, with no unanticipated side effects or complications. This is undoubtedly a reflection of the very safe nature of this treatment which only fulgurates the tissues to a depth of 1-2 mms. Eighty-two percent of patients were treated as day care cases and were able to return to normal activity/work on average 2 weeks after treatment. The very positive response to the question regarding recommendation of this type of treatment to family and friends suggests that patients found the treatment very acceptable. 6 of these patients conceived following treatment, although it is not possible to draw any conclusions as to whether the conceptions were facilitated by the laparoscopic treatment of endometriosis, although the study by Maheux et al (1997) suggests this may well be the case. This suggests a further advantage of surgical treatment over medical therapy for patients with fertility problems.

This study supports the use of the Helium Ion Beam Coagulator (Helica T.C.) as a cost effective and safe alternative method of treating endometriosis laparoscopically. The limitations of this retrospective case study are recognised and a further randomised controlled study comparing the Helium Beam Coagulation therapy with GnRH analogue therapy is proposed.

References

Donaldson K F & Hawthorn R J S (1995), Laparoscopic use of the Helica thermal coagulator: the first report: *Gynaecological Endoscopy*, 4; 281-2.

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Helica instruments Ltd
Block 5 Unit 1
Research & Development Park
Heriot Watt University
Riccarton , Edinburgh
EH14 4AP

Tele: 0131 449 4933 E Mail: info@helica.co.uk
Fax : 0131 449 2204 Web: www.helica.co.uk