

## GYNAECOLOGY SHORT COMMUNICATION

# Thermal balloon endometrial ablation (Cavaterm) in the management of menorrhagia

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### Introduction

The most frequently used second-generation endometrial ablation techniques in UK clinical practice are fluid filled thermal balloon endometrial ablation and microwave endometrial ablation (NICE 2004).

The aim of our survey is to evaluate the clinical effectiveness (amenorrhoea and satisfaction rate) of thermal balloon endometrial ablation (Cavaterm) in the management of menorrhagia in Leicester General Hospital by means of a patient questionnaire.

### Materials and methods

All women who underwent endometrial balloon ablation (Cavaterm) between June 2002 and April 2004 at the Leicester General Hospital were included in the survey and a questionnaire was sent to them at least 6 months after the procedure to ascertain their menstrual pattern before and after treatment. Women were asked to record their menstrual pattern using scoring system of 5 (absence of a period 1, light 2, moderate 3, heavy 4 and very heavy 5). Pain during periods was assessed using a similar scoring system of 5 (no pain 1, mild 2, moderate 3, severe 4 and very severe 5).

*A successful procedure was defined by:*

1. The onset of amenorrhoea (score 1), not due to hysterectomy, within 6 months from the procedure
2. Menstrual loss described as light or moderate (score 2, 3), provided no further treatment was required.

*Failure was defined by:*

1. Menstrual loss described as heavy or very heavy (score 4, 5)
2. The need for further medical or surgical treatment following the procedure.

### Results

From July 2002 to April 2004, a total of 82 women underwent endometrial balloon ablation (Cavaterm). A total of

12 of them (14%) failed to respond to the questionnaire sent (response rate = 86%).

The mean age was 43.6 years (35–53 years). The average uterine cavity length was 8.3 cm (6–10 cm), volume of fluid used was 14.1 ml (5–55 ml), pressure = 235 mmHg (230–258 mmHg) and average temperature was 74.1°C (65.7–78°C). All procedures were carried out under general anaesthesia.

A total of 62 patients (88.5%) described an improvement in their periods after the procedure: either total absence, light periods (score 1 or 2), or moderate (score 3) but better than before and no need for further treatment (Table I).

From those 62 patients, 17 of them were amenorrhoeic (24.2%). Only eight (11.5%) described their periods as no better than before and considered that the procedure had failed to control their heavy menstrual bleeding.

Before the procedure, the majority of patients 41 (58.5%) described their pain during periods as severe (scores 4 and 5). A total of 11 patients (15.7%) had a pain score of 3, while 18 (25.7%) described no pain or only slight pain (scores 1, 2).

After the procedure, we found that the majority of the women 45 (64.3%) described their periods as either painless or with only slight pain (scores 1, 2); seven (10%) continued to have pain of score 3, but 18 (25.7%) continued to have significant pain during their menstruation after the procedure (scores 4 and 5). The number of patients describing moderate or severe pain fell from 58.6% to 25.7% (Table II).

### Discussion

Thermal balloon endometrial ablation using the cavaterm system is designed to treat patients with menorrhagia (heavy menstrual bleeding) and found to be safe and effective (NICE 2004; Amso et al. 1998).

The patient satisfaction rate in our survey of 88.5% is comparable with the published data (Bridgman and Dunn 2000; Alaily et al. 2003; Friberg and Ahlgren 2000; Hawe et al. 1999) and adds to these data regarding the efficacy of the TBEA and providing a simple and effective alternative

Table I. The distribution of patients according to the scores of period before and after ablation

	Period	
	Before	After
Score 1, 2, 3	5 (7.1%)	62 (88.5%)
Score 4, 5	65 (92.9%)	8 (11.5%)

Table II. The distribution of patients according to the scores of pain before and after ablation

	Pain	
	Before	After
Score 1, 2, 3	29 (41.4%)	52 (74.3%)
Score 4, 5	41 (58.6%)	18 (25.7%)

to the earlier first generation techniques of endometrial ablation.

From looking at the failed procedures, there were no procedure-related factors to the failure but this can not be taken as a significant finding because of the small number of patients in this group and certainly a bigger sample size would be needed to investigate the procedural factors contributing to the failure.

An interesting observational finding was a direct relationship between the severity of the period and the pain. Those who had improvement in their menstrual bleeding after the procedure also noticed an improvement in the period-related pain.

## References

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