

Pain Scores in Outpatient Endometrial Ablation: Paraostial vs. Fundal Local Anaesthesia Infiltration

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Introduction

Endometrial ablation (EA) is a therapeutic option for managing heavy menstrual bleeding (HMB) in women who have not responded to pharmacological treatments, have declined such options, or experience severe symptoms (NICE, 2021). This study aims to compare pain scores in fundal block versus paraostial block during outpatient endometrial ablation (OEA), and to assess patient suitability, tolerability, and the overall efficacy of OEA under local anaesthesia.

Method

A retrospective analysis was conducted over four years (January 2020 to December 2024) on all women who underwent OEA at Worthing Hospital. All patients received pre-procedural oral analgesia, a para-cervical block and either fundal or paraostial infiltration of Levobupivacaine using a Williams needle as demonstrated in figure 1. Pain scores were assessed immediately following the procedure using a numeric rating scale and compared between the two techniques. Pain scores were also compared to those for outpatient diagnostic hysteroscopy.

Additional data collected included patient age, BMI, device activation time, average power used, endometrial coverage, and endometrial biopsy results

Results

A total of 73 women were included in the study, with 60 patients receiving fundal blocks and 13 receiving paraostial blocks. The demographics of the fundal block group were as follows: mean age of 45 years (range 34-58 years) and mean BMI of 29.9 kg/m² (range 20-50 kg/m²). The mean device activation time in this group was 81 seconds (range 38-120 seconds) (Table 2).



Figure 1: Outpatient endometrial ablation sterile trolley set up. [1] Cusco's speculum [2] Sponge-holder forceps with swab [3] Tenaculum [4] Hegar dilators [5] Local anaesthetic [6] Chlorhexidine cleaning solution

The demographics of the paraostial block group were mean age of 45 years (range 27-54 years) and mean BMI of 31.4 kg/m² (range 23-46 kg/m²). The mean device activation time here was 91 seconds (range 45-120 seconds) (Table 2).

	Paraostial	Fundal
Age	45	46
BMI	31.4	29.9
Device activation time (s)	91	81

Table 2: Age, BMI and device activation time for patients undergoing outpatient endometrial ablation

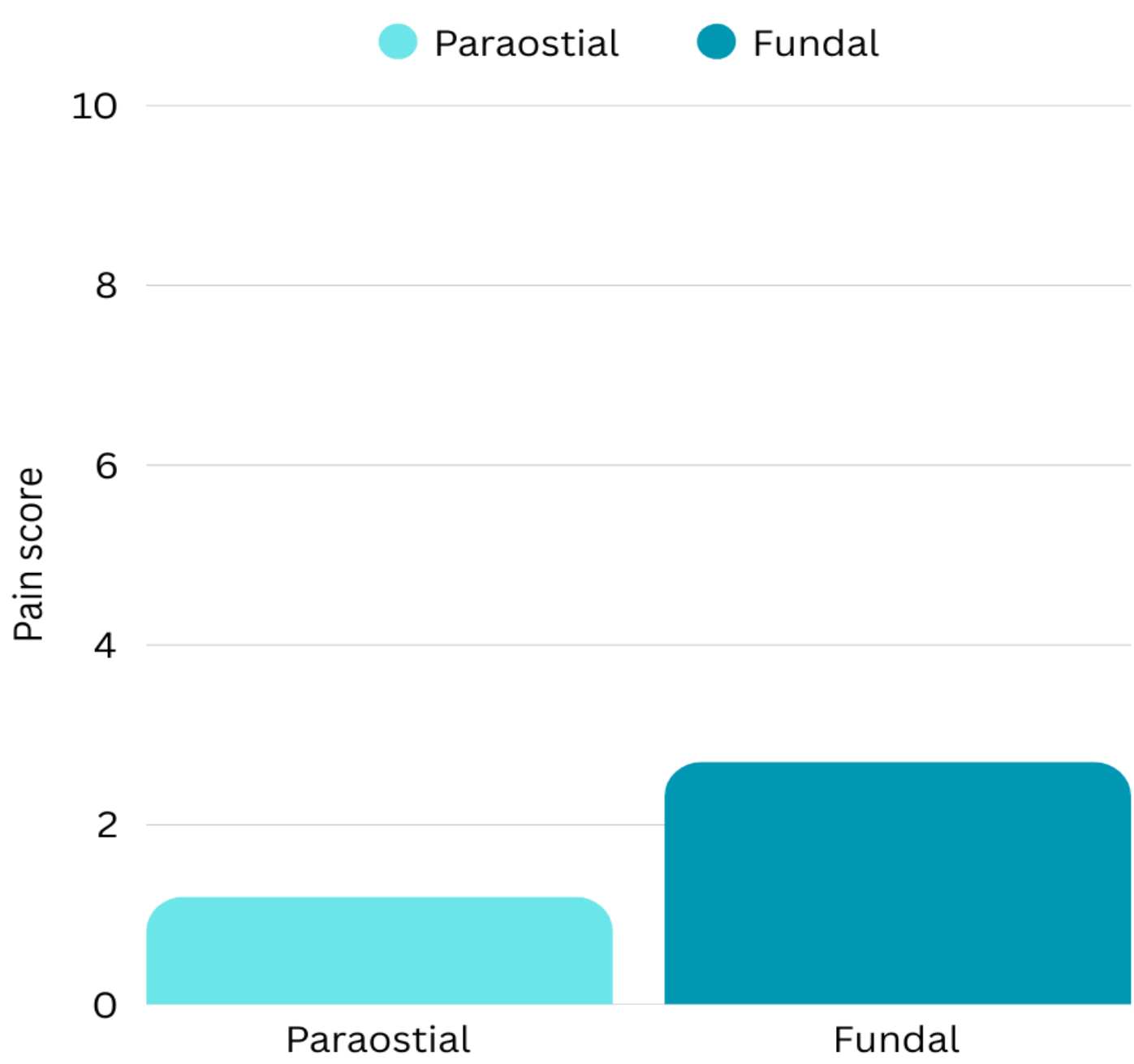


Figure 3: Comparative pain scores between paraostial block (n=13) and fundal block (n=73) prior to outpatient endometrial ablation for heavy menstrual bleeding

The fundal block group reported a mean pain score of 2.7 while the paraostial block group reported a mean pain score of 1.2. The average pain score for OEA in total was 2.4/10, compared to 5.3/10 for diagnostic hysteroscopy

Conclusions

OEA under local anaesthesia is an effective, well-tolerated, and safe treatment option for women with heavy menstrual bleeding. Although the paraostial group was relatively small, and the procedure may present technical challenges, our experience suggests that it offers more effective anaesthesia when successfully performed. We acknowledge the small sample size in the paraostial group as a limitation, and further prospective studies with larger sample sizes and statistical testing are needed to validate these findings.

References

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