

Review of day case and outpatient Novasure endometrial ablation procedures

By Dr Nirmala Sharma (Trust Grade Obgyn) , Emma Taylor (4th year Medical student) and Dr Michal Waronski (ST7 Obgyn)



Background

Novasure endometrial ablation (EA) is considered a safe and effective procedure for managing heavy menstrual bleeding (HMB). Heavy menstrual bleeding affects 30% of the whole population. HMB significantly impacts quality of life. Premenopausal women with heavy periods due to benign causes, who have finished childbearing, are candidates for endometrial ablation. Endometrial ablation is a technique that aims to reduce menstrual flow, sometimes causing amenorrhea.

Novasure is an example of a second-generation EA device, which uses a bipolar radiofrequency impedance-controlled system that evaporates endometrial tissue. The EA procedure is a minimally invasive alternative to hysterectomy. It is known to result in amenorrhea in 50% of women, with satisfaction of 80-90%. It is feasible to perform the procedure both under general anaesthetic as a day case and using local anaesthesia as an outpatient, however there is very little research about which of these methods has the best clinical outcome, is safest, or most effective.



Objective

The main objective is to compare the clinical outcomes, safety and effectiveness of Novasure endometrial ablation done as a day case and as an outpatient procedure.

Methods

This retrospective audit includes all Novasure endometrial ablation procedures performed in day case and outpatient settings at Derriford Hospital. We obtained cases coded in one year, from Jan 2023 to Dec 2023 of radio ablation of endometrium through a local data analyst. We had 51 cases. We stratified this into two groups, 27 performed as day cases and 22 performed as outpatient procedures. We reviewed the physical case notes looking at patient background, indications, other treatment used, short term complications and long term complication.

Results

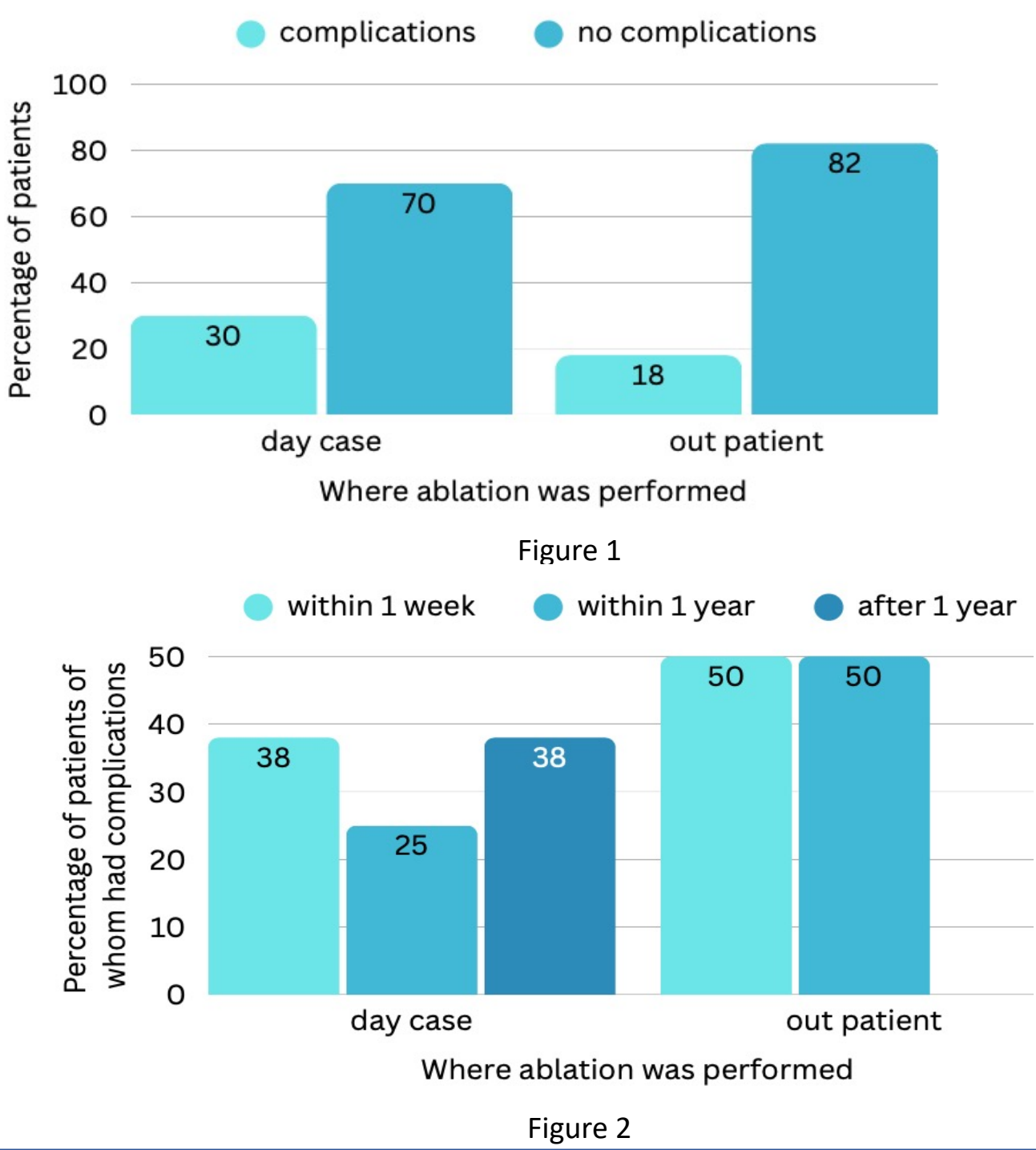
Our Population

Ages ranged from 28 to 54, with most patients falling within age groups 45-49 and 50-54. BMI ranged from 21-52: distributed evenly between healthy, overweight, obese, and excessively obese categories.

49% of this population had scans confirming uterine pathologies prior to their ablation with the most common pathology being fibroids (72%). 82% of patients had tried other treatments prior to their ablation.

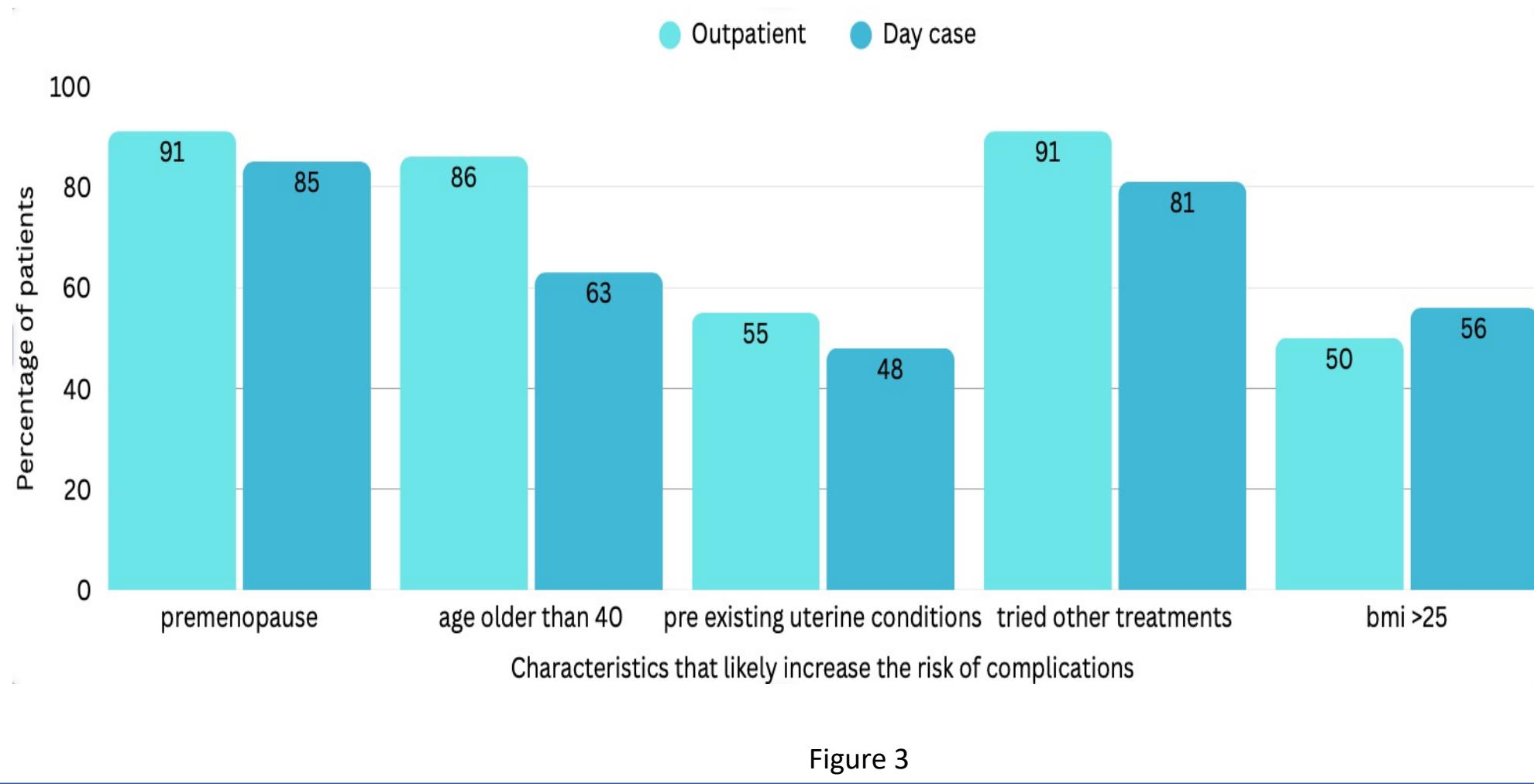
Clinical outcomes, safety and effectiveness

In this audit we found Novasure ablation to be clinically effective. 2 out of 51 (3.9%) had Hysterectomy, as opposed to 8% as per NICE guideline. Major complications following ablation involved vaginal bleeding +/- pain. Of the 27 day cases, 8 had complications. Of the 22 outpatient cases, 4 had complications. Figure 1 compares these figures as percentages. Figure 2 illustrates when these complications occurred.



Confounding characteristics

Although cases performed as day cases had more complications than those performed as outpatients, we are aware this could be due to differing confounding characteristics between day case and outpatient ablation patient. These confounding characteristics may have increased a groups likelihood of having complications. Figure 3 shows some of these characteristics and how these compared between day case versus outpatient ablation patients.



Limitations

- Retrospective data collection.
- Diagnostic difficulty of pre-existing conditions like adenomyosis , endometriosis etc.
- Reliance on good documentation

Conclusion

Day case ablations were associated with more complications than outpatient procedures, despite the outpatient group having more high-risk features. This indicates no clear advantage to the day case approach. Further research is recommended to explore potential correlations between patient factors and complication rates.

References

- NICE Guideline: Management of Heavy Menstrual bleeding ageeavy menstrual bleeding
- Campbell, P., Monaghan, C. & Parker, M. NovaSure endometrial ablation: a review of 400 cases. *Gynecol Surg* 9, 73–76 (2012)
- Kumar V, Chodankar R, Gupta JK. Endometrial ablation for heavy menstrual bleeding. *Womens Health (Lond)*. 2016 Jan;12(1):45-52