

Using Pentrox In A Gynaecology Procedural Clinic In Provincial New Zealand

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ABSTRACT

Objective: To improve the patient experience when undergoing gynaecological procedures in the out-patient clinic (OPC) using Pentrox (Methoxyflurane) for enhanced analgesia and avoiding a general anaesthetic (GA) and day case procedure as the alternative.

Design: We identified procedures which we have observed some patients find moderately uncomfortable having performed in the OPC. For these patients the options are either having the procedure done with no/simple analgesia and feeling pain or due to associated anxiety that experiencing pain would cause, having a GA in theatre as a day case which means fasting and a longer recovery for the patient and increased cost for the hospital.

A patient satisfaction questionnaire was completed at the end of the procedure to rate how effective Pentrox was for them. We also recorded Nurse observed and patient reported side effects using Pentrox. After the first 20 cases we looked at the results and decided to continue for 12 months to allow a large number to audit the outcomes.

Method: Appropriate procedures were identified including cervical smear, intrauterine system/contraceptive device (IUS/IUCD) removal and insertion with/without hysteroscopy, removal of endometrial polyps, LLETZ and excision of vulval lesions. Suitable patients were identified while triaging the referral letter to the gynaecology clinic. Some patients came from other gynaecology clinics e.g. insertion of IUS attempted but unsuccessful due to pain and option of Pentrox over GA was given.

We recorded the procedure performed and if successfully carried out. Nurse observed and patient reported side effects and patient satisfaction questionnaires were completed.

Results: We completed 78 cases in 12 months which included hysteroscopic IUCD/IUS removal with/out insertion (32), IUS insertion alone (19), non-hysteroscopic removal with/out insertion (15). Hysteroscopic assessment of uterine cavity for fertility investigations (3). Excisional procedures including LLETZ and cysts (6) and Myosure for polyps (3).

Patient satisfaction scores on a scale 1-5 to rate effectiveness of Pentrox (1 being not effective and 5 very effective). 52 patients rated 5 (67%), 20 (26%) rated 4, 4 (5%) rated 3 and 1 each for 2 and 1 (2%).

Patient reported side effects included dizziness (12) and nausea (6). Nurse observed side effects included a drop of heart rate of 20bpm during administration.

Conclusion: Pentrox provides safe and very effective enhanced analgesia for minor procedures, avoiding theatre and GA. We will increase the different types of procedures performed under Pentrox in future.

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INTRODUCTION

Out patient hysteroscopy (OPH) is an established diagnostic test. The OPH clinic was established in Hawke's Bay Hospital in 2016 to initially see women with post menopausal bleeding (PMB) in a timely manner for investigation and diagnosis of potential malignancy. The aim was to make the clinic experience more woman focused, address equity, reducing the number of appointments/visits to the hospital, faster diagnosis/reassurance. Although diagnostic OPH is a successful, safe and well tolerated procedure, we wanted to be able to provide operative hysteroscopic procedures as well as LLETZ, insertion/removal of IUCD/IUS and vulval excisions where more than simple analgesia is required and the only other alternative would be a general anaesthetic as a day case procedure.

Pentrox (methoxyflurane) *Figure 1*, (Douglas Pharmaceuticals) was thought to be a perfect alternative to general anaesthesia.

METHODS AND MATERIALS

Appropriate procedures were identified from our experience with cases seen in out patient gynaecology clinics that would be listed for a general anaesthetic day case procedure in theatre due to requiring more than simple analgesia/local anaesthesia. These included cervical smears, intrauterine system/contraceptive device (IUS/IUCD) removal and insertion with/without hysteroscopy, removal of endometrial polyps, LLETZ and excision of vulval lesions. Suitable patients were identified while triaging the referral letter to the gynaecology clinic. Some patients came from other gynaecology clinics e.g. insertion of IUS attempted but unsuccessful due to pain and the option of Pentrox over GA was given.

We recorded the procedure that was performed and if successfully carried out. Nurse observed and patient reported side effects and patient satisfaction questionnaires were completed.

RESULTS

We completed 78 cases in 12 months which included: hysteroscopic IUCD/IUS removal with/out insertion (32), IUS insertion alone (19), non-hysteroscopic removal with/out insertion (15). Hysteroscopic assessment of the uterine cavity for fertility investigations (3). Excisional procedures including LLETZ and labial cysts (6) and Myosure for polyps (3).

Table 1

Procedure	Number of cases
Hysteroscopic IUCD removal	20
IUS insertion (without hysteroscopy)	17
Hysteroscopic retrieval & reinsertion	12
Retrieval & reinsertion only	11
Retrieval only	4
Hysteroscopic assessment of uterine cavity	3
Hysteroscopic guided placement IUS	3
Myosure	3
Excisional procedures	6

Table 1. Numbers of procedures.

RESULTS

Patient satisfaction was gathered from patient questionnaires completed at the end of the appointment. A scale of 1-5 to rate effectiveness of Pentrox assisting with the procedure being completed. (1 being not effective and 5 being very effective) *Table 2*

Patient reported side effects included dizziness and nausea.

Patient Satisfaction Score	Score (% of Group)
5 very effective	52 (67)
4	20 (26)
3	4 (5)
2	1 (1)
1 Not effective	1 (1)

Table 2. Patient Satisfaction Score

DISCUSSION

With waiting list times for elective procedures in theatre increasing in all public healthcare settings, avoiding the need to take cases to theatre which have an alternative pathway allows more access for all.

For some gynaecological procedures there is a large anxiety component for the patient and more enhanced analgesia/anaesthesia options would help make it a far better experience, without the risk of general anaesthetic.

Can Pentrox be used in a variety of settings and low income countries?

CONCLUSIONS

For patients, Pentrox provides safe and very effective enhanced analgesia for minor procedures, avoiding theatre and GA.

From the cost aspect it is far more cost effective to use Pentrox in an out patient environment than a day case admission to theatre and general anaesthetic.

Highlighting suitable cases at the point of triaging the referral from primary care to secondary care can also reduce the number of visits for the patient and taking time out of their daily life, making it more patient focused.



Figure 1. Pentrox, "The Green Whistle"