Window of Pain Study: A Prospective Cohort trial Identifying the Thresholds for Pain During Diagnostic Hysteroscopy

Miss Hannah Pazvakavambwa, Mr Sergio Hamovich, Dr David Rawaf

Aims:

Identify thresholds for pain during hysteroscopy to inform surgical training via hysteroscopy simulator.

Background:

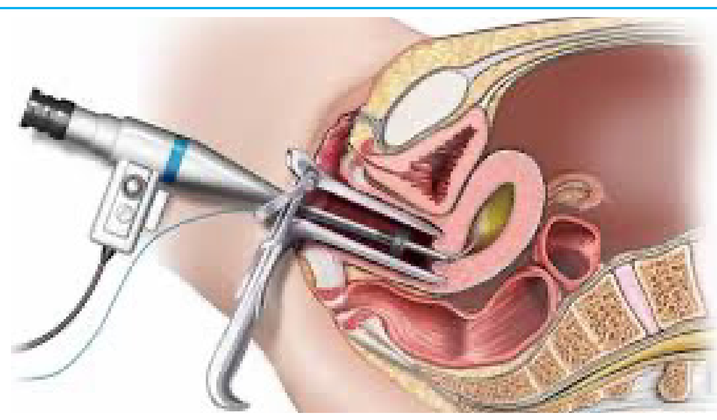
Diagnostic hysteroscopy remains to date globally the gold standard for diagnosing and managing intrauterine pathologies (Riemma, et al., 2020). Ambulatory hysteroscopy has been to be proven a safe procedure, with patient experience however differing vastly. Evidence has shown 66% of women experience mild pain, 22% moderate pain and 12% severe pain during the operation (Malu, et al., 2023). Designed as a prospective cohort study, this study aims to amalgamate such factors to help in the hysteroscopic training of surgical trainees.

Methods:

During diagnostic hysteroscopy, patients (n = 20) will be analysed for pain. Half the cohort will be made up of a control, using only the visual analogue scale, to reduce observer bias. The other half will be given a clicker to communicate pain at differing points of fluid management, and position of the hysteroscope along the vertical and horizontal axis. These factors can then be put together to identify the relationship between pain, fluid pressure and hysteroscope movement along a vector. Results to follow

Conclusion:

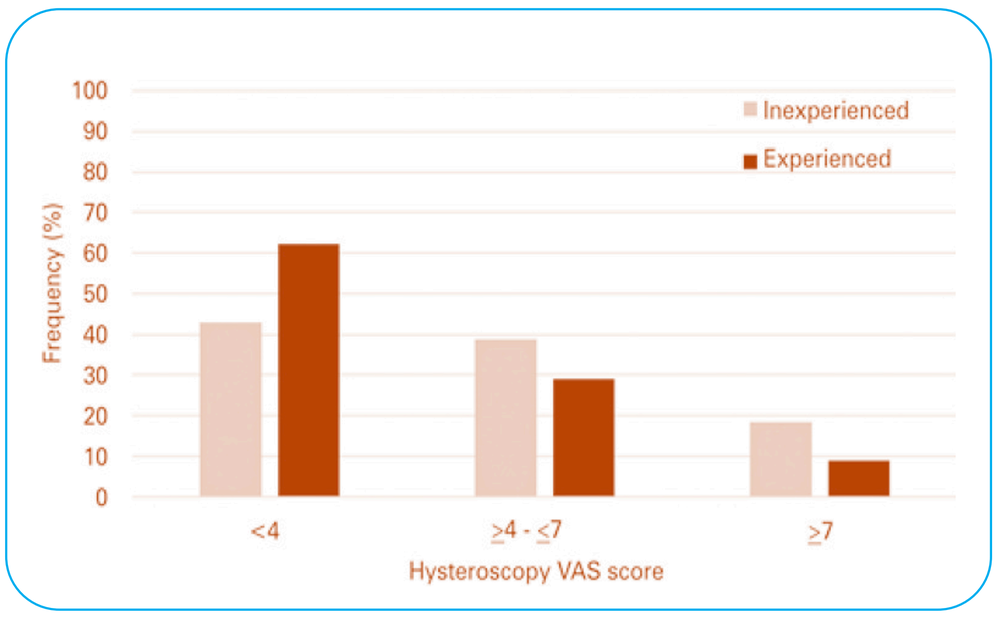
Compounding its results with information regarding pain pathways, this study aims to advise surgical training by providing exact parameters for hysteroscopy simulation to ensure patient-centred care.



Literature Review

Prevalence of pain perception during diagnostic hysteroscopy according to categorized Visual Analog Scale score and surgeon experience

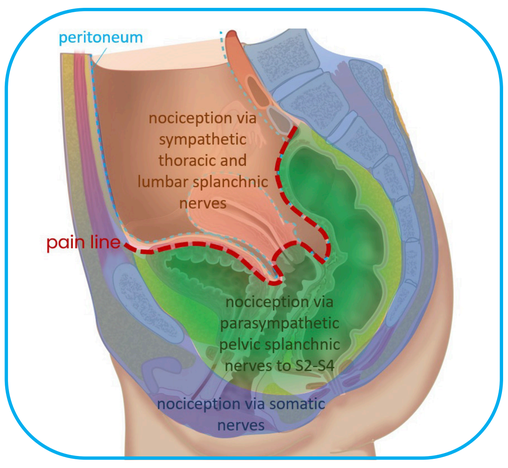
Pegoraro, A. et al. 2019



Pain relief for outpatient hysteroscopy Ahmed et. al 2017

Pain experienced is due to several factors:

- Cervical instrumentation
- Uterine distension
- Peritoneal irritation from spill of dilation media



Pain and Operative Technologies Used in Office Hysteroscopy: A Systematic Review of Randomized Controlled Trials De Silva et. al 2021

Operative factors that affect pain in office hysteroscopy included:

- Hysteroscopy diameter
- Use of morcellators over miniature bipolar
- 3.5-mm fiber-optic hysteroscopes with 7Fr forceps rather than 5-mm lens-based hysteroscopes with 5Fr forceps ($p < .05$)
- Use of cold mini-scissors rather than miniature bipolar

Acknowledgements

We would like to thank Inovus Medical and the Global Community of Hysteroscopy for its work with this study. Though working as a part of Inovus Medical, we have however sought to avoid over mentioning our products or pushing sales. The intention of this poster is to communicate the importance of this subject and provide background for an oncoming train. We extend gratitude and thanks to BSGE in allowing us to present our study.

References:

Ahmad, G. et al., 2017. Pain relief for outpatient hysteroscopy. Cochrane Database Systemic Reviews , Volume 10. De Silva, P.M. et al. (2021) 'Pain and operative technologies used in office hysteroscopy: A systematic review of randomized controlled trials', Journal of Minimally Invasive Gynecology, 28(10), pp. 1699–1711. doi:10.1016/j.jmig.2021.05.018. Harrison, R. et al., 2020. Pain-free day surgery? Evaluating pain and pain assessment during hysteroscopy. British Journal of Anaesthesia , 125(6), pp. e468-470. Labor, S. & Maguire, S., 2008. The Pain of Labour. Reviews in Pain , 2(2), pp. 15-19. Malu, A., Patvekar, M., Kolate, D. & Laxmi, K. D., 2023. Ambulatory Hysteroscopy: Evaluating Pain and Determining Factors. Journal of Obsterics and Gyanecology India , 73(5), pp. 434-439. Riemma, G. et al., 2020. Pharmacological and non-pharmacological pain relief for office hysteroscopy: an up-to-date review. Climacteric, 24(4), pp. 376-383. Pegoraro, A. et al. (2019) 'Prevalence and intensity of pain during diagnostic hysteroscopy in women attending an infertility clinic: Analysis of 489 cases', Einstein (São Paulo), 18. doi:10.31744/einstein_journal/2020ao4916.