BEYOND ANTIEMESIS: EVALUATING INTRAVENOUS DIMENHYDRINATE AS AN ADJUNCT TO CONSCIOUS SEDATION IN IVF OOCYTE RETRIEVALS

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INTRODUCTION AND PURPOSE

Most IVF oocyte retrievals in Canada are completed using conscious sedation. Several adjuvant therapies have been described as supporting conscious sedation for IVF oocyte retrievals, including acupuncture, music therapy, and paracervical blocks.

Our prospective study explores the impact of pre-procedural intravenous dimenhydrinate (IV-DMH) administration on patient and provider pain scores, as well as patient experience during IVF oocyte retrievals.

METHODS

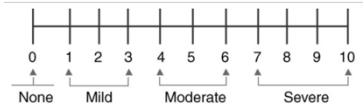
Patients (n=370) were counselled on the option to utilize IV-DMH pre-procedurally as an adjunct. 263 patients elected to receive IV-DMH; 107 declined and were included as controls.

Questionnaires assessing patient-reported pain during the procedure were administered to all patients using the visual analogue scale (VAS) between 1-10. These were also administered to the nurse present intraoperatively during the procedure for comparison.

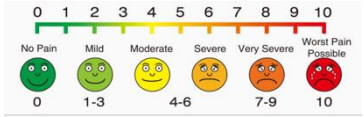
Patient feedback was qualitatively recorded through the questionnaire to assess whether the oocyte retrieval was similar, better, or worse compared to patient expectations. The nursing questionnaire included a qualitative section to record any adverse effects.

Differences in patient VAS pain scores between the IV-DMH vs. Control groups were compared using independent Welch's t-tests. Differences in patient vs. provider VAS pain scores were compared using paired t-tests. Outcomes such as patient experience, post-operative nausea and vomiting, post-operative pain, prolonged recovery, and adverse effects were characterized as categorical variables and compared using chi-square tests between the IV-DMH vs. Control groups.

RESULTS



Visual Analogue Scale (VAS) Pain scale



Wong-Baker Faces Pain Scale

IVF oocyte retrievals are a moderately painful procedure on average, and moderate-severely painful at their worst.

87% of patients receiving IV-DMH reported that the oocyte retrieval was "similar or better" than their expectations, compared to 74% in the control group (p=0.01)

Figure 1. Impact of pre-procedural IV-DMH on patient VAS pain scores during the procedure on "average", and at its "worst"

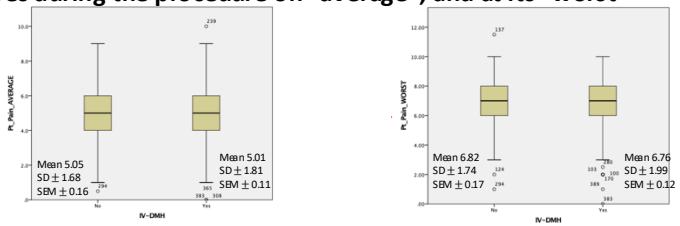
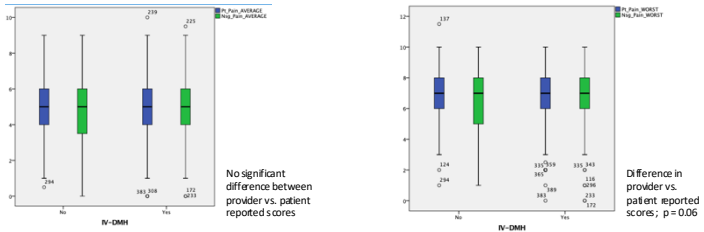
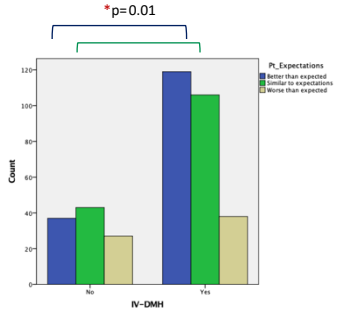


Figure 2. Patient vs. Provider VAS pain scores – during the procedure on "average", and at its "worst"



RESULTS

Figure 3. Patient Experience - Was the procedure similar, better or worse compared to your expectations?



CONCLUSIONS

- IV-DMH prior to oocyte retrieval is a promising adjunct, especially in improving overall patient experience.
  - 87% of patients in the IV-DMH group reported that the oocyte retrieval was similar or better than their expectations compared to 74% in the Control group (p=0.01).
- No differences in post-operative concerns between the IV-DMH vs. Control groups including: post-operative pain, incidence of nausea/vomiting, prolonged recovery, time-to-discharge, or side effects.
- Pain is a variable experience dependent on patient and procedural factors, and there are challenges to assessing it as a clinical outcome.
- The observed difference between provider-perceived and patient-reported peak pain scores poses an opportunity to improve pain assessment and patient-centered analgesic approaches during oocyte retrievals.

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