

DISCIPLINE OF OBSTETRICS & GYNECOLOGY

32nd Annual Resident Research Day
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PROGRAM OF
ABSTRACTS



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Discipline of Obstetrics & Gynecology
32nd Annual Resident Research Day
Program of Abstracts

PART 1: ORAL PRESENTATIONS

9:00 **Introduction and Welcome**

9:10 **Implementation of Enhanced Recovery After Surgery (ERAS) Protocol for Gynecologic Surgery: Single Center Study**

Dr. Tracey Roche

9:30 **Perineal Outcomes at Subsequent Pregnancy in Nova Scotian Women with Prior Obstetrical Anal Sphincter Injury**

Dr. Emma Pollard

9:50 **Early Prenatal Care Providers and Prenatal Screening: Perceptions and Practice Patterns of Prenatal Counselling in Newfoundland and Labrador**

Dr. Nicole Ralph

10:10 **Impact of Menopausal Symptoms on Quality of Life and Patients' Knowledge Regarding Hormone Replacement Therapy**

Dr. Annie Gu

10:30 NUTRITION BREAK

10:50 **Rates of Early Screening for Gestational Diabetes Mellitus in the Obese Population in Newfoundland and Labrador**

Dr. Christine Anstey

11:10 **Assessing and Improving Abortion Care Knowledge Among Healthcare Students and Professionals Through an Online Course in Newfoundland and Labrador**

Dr. Karen Wong

11:30 **Gestational Weight Gain in Women with Pre-Existing Gestational Diabetes**

Dr. Karen Wong

PART 2: LUNCH AND GUEST SPEAKER

12:00 LUNCH

12:30 **The Science and Practice of Mindfulness in Women's Sexual Health**

Dr. Lori Brotto

PART 3: ORAL PRESENTATIONS

1:30 **The Maternal and Perinatal Outcomes of Methadone Use in Pregnancy: A Single-Center Retrospective Cohort Study from 2005-2018**

Dr. Adam Comerford

1:50 **Does Feedback Improve Laparoscopic Skills for Junior Surgical Residents Using at Home Box Trainers during COVID-19?**

Dr. Chelsea Harris

2:10 **Impact of COVID-19 Related Restrictions on Pregnant Women in St. John's, Newfoundland and Labrador**

Dr. Stephanie Gill

2:30 **Primary Seminal Vesicle Smooth Muscle Neoplasm of Uncertain Biologic Potential**

Dr. Charlotte Roy

2:45 CLOSING REMARKS

PART 1:
ORAL PRESENTATIONS

IMPLEMENTATION OF ENHANCED RECOVERY AFTER SURGERY (ERAS) PROTOCOL FOR GYNECOLOGIC SURGERY – SINGLE CENTRE STUDY

Roche T, Hsieh A, O'Brien D, Neveu J
Memorial University of Newfoundland

Objective: To determine if implementation of ERAS protocol improves patient outcomes following gynecologic surgery.

Methods: Data collection pre and post-ERAS implementation will take place over a defined time period (length of which will be determined by sample size calculation). This study will look at the average length of stay post-operatively for patients admitted to 5NB at the Health Sciences Centre after undergoing gynecologic surgery. Possible secondary outcomes include readmission rates, patient satisfaction, staff satisfaction. Post-operative admission order sets based on ERAS guidelines will be implemented, and all gynecology residents/staff and 5NB nursing staff will receive education with respect to ERAS protocol implementation.

Results: Pending.

Conclusion: Pending.

PERINEAL OUTCOMES AT SUBSEQUENT PREGNANCY IN NOVA SCOTIAN WOMEN WITH PRIOR OBSTETRICAL ANAL SPHINCTER INJURY

Pollard E, Woolcott, C, Smith A.
Dalhousie University

Background: Third- and fourth-degree perineal lacerations are collectively termed obstetrical anal sphincter injury (OASIS). Women who sustain these injuries are at increased risk of recurrence in subsequent delivery.

Objective: The primary objective was to determine the rate and degree of perineal laceration at subsequent vaginal delivery amongst Nova Scotian women with a history of prior OASIS. The second objective was to assess risk factors for recurrence.

Methods: This was a retrospective cohort study using the Nova Scotia Atlee Perinatal Database. The population consisted of primiparous women in Nova Scotia who sustained an OASIS following a term, singleton vaginal delivery between 2004 and 2019, who then had a subsequent delivery. The outcome of interest was OASIS recurrence. Risk factors that were examined included maternal age, body mass index (BMI) at delivery, height, labour induction, length of second stage of labour, use of vacuum or forceps, birthweight, and the degree of laceration in the first pregnancy.

Results: Of the 1415 primiparous women who sustained an OASIS, 1236 (87.4%) went on to have a vaginal delivery in their subsequent pregnancy. Eighty-eight (7.1%) of these women sustained a recurrent OASIS: 76 (6.2%) third-degree and 12 (0.97%) fourth-degree lacerations. The estimated odds ratios (95% CI) for recurrence of OASIS were 1.26 (0.99-1.59) per 5-year increase in age, 1.15 (0.95-1.39) per 5 kg/m² increase in BMI, 1.78 (1.40-2.26) per 500 g increase in birthweight, and 4.58 (2.57-8.16) for the use of vacuum or forceps. Other characteristics investigated were not significantly associated with the odds of recurrence.

Conclusions: Our findings are in keeping with the literature regarding rate of recurrence and risk factors for OASIS amongst primiparous women. Our study offers a Canadian perspective to the current body of data and provides the groundwork for further research in this field.

EARLY PRENATAL CARE PROVIDERS AND PRENATAL SCREENING: PERCEPTIONS AND PRACTICE PATTERNS OF PRENATAL COUNSELLING IN NEWFOUNDLAND AND LABRADOR

Ralph N, Cook C

Memorial University of Newfoundland

Objective: Informed access to prenatal screening (PNS) services is of paramount importance. All pregnant women should be offered prenatal screening regardless of risk factors and this counselling should be performed in a manner such that it empowers them to make their own informed choice. In Newfoundland and Labrador, we have a shared care model of prenatal care. The majority of early prenatal care in this province is provided by Family Physicians and Nurse Practitioners prior to referral to an Obstetrician Gynecologist at twenty-eight weeks gestation. The present study aims to examine the perceptions and practice patterns of early prenatal care providers in the province of Newfoundland and Labrador as it pertains to PNS. Ultimately, we would like to harness this information to facilitate the creation of a learning module for early prenatal care providers to educate about, and advocate for, offering comprehensive prenatal screening to all obstetrical patients.

Methods: A digital survey will be disseminated to Family Physicians and Nurse Practitioners in Newfoundland and Labrador via association e-mail distribution lists. This digital survey will capture practice patterns of PNS including frequency with which PNS is offered, perceived comfort levels with PNS counselling, knowledge of current provincial PNS options and any perceived barriers to providing regular PNS counselling.

Results: Pending.

Conclusion: Pending.

IMPACT OF MENOPAUSAL SYMPTOMS ON QUALITY OF LIFE AND PATIENTS' KNOWLEDGE REGARDING HORMONE REPLACEMENT THERAPY

Gu A, Holden C, Rutihinda S,
Memorial University of Newfoundland

Objective: To assess the quality of life of women experiencing perimenopausal/menopausal symptoms, as well as patients' knowledge regarding treatment options, mainly hormone replacement therapy.

Methods: The target age group is female between the ages of 45-65. This is a cross-sectional study that would be conducted using a validated questionnaire (MenQOL) to assess the quality of life of women going through perimenopause/menopause, and at the same time, assess their knowledge of the safety and efficacy of hormone replacement therapy using a separate knowledge questionnaire. Demographic information will be collected from the questionnaire as well. Participants will be recruited from the Women's Health Clinic at the Health Sciences Center, and also from the clinics of a few participating Gynecologists located in St. John's, NL.

Results: Pending.

Conclusion: Pending.

RATES OF EARLY SCREENING FOR DIABETES IN PREGNANCY IN THE OBESE POPULATION IN NEWFOUNDLAND AND LABRADOR

Anstey C, O'Brien D, Murphy P, Crane J
Memorial University of Newfoundland

Objective: To evaluate how well practitioners in Newfoundland participate in early screening for gestational diabetes in the at-risk, obese (BMI greater than or equal to 30 kg/m²) population as per the 2018 Diabetes Canada Guideline. Demographics and screening frequencies amongst the three categories of obesity will be compared, and the most frequent method of early screening (HbA1C, 50 g glucose challenge test, or 75 g OGTT) will also be assessed. The aim will be to identify areas where further education/interventions could be proposed to promote early screening for diabetes in pregnancy in this at-risk population.

Methods: This project will be a retrospective chart review from June 1, 2019 to May 31, 2020. The Perinatal Program of Newfoundland and Labrador will be used for data collection to obtain a list of women with BMI greater than or equal to 30 kg/m² who delivered a singleton gestation in Eastern Health between the above specified dates. Demographic information for these women will also be collected. Meditech files of women meeting the inclusion criteria for the study will be reviewed to determine whether early screening for diabetes in pregnancy (prior to 20 weeks, 0 days gestation) took place prior to routine screening as per the recommendations and guidelines. The method of early screening (HbA1C, fasting blood glucose, 50 g glucose challenge test, or 75 g OGTT) will be assessed through Meditech review as well. The results of the screening and whether there was an eventual diagnosis of GDM will be evaluated. Collected results will provide insight regarding how well practitioners screen for GDM in the at-risk, obese population. This information could be used to determine whether interventions are needed to attempt to increase early screening rates in Newfoundland.

Results: Pending.

Conclusion: Pending.

ASSESSING AND IMPROVING ABORTION CARE KNOWLEDGE AMONG HEALTHCARE STUDENTS AND PROFESSIONALS THROUGH AN ONLINE COURSE IN NEWFOUNDLAND & LABRADOR

Wong K, Manning S, Gill A

Memorial University of Newfoundland

Background: Access to abortion for women depends on the availability of qualified and skilled providers in their area, but there may be insufficient training in Canadian medical schools and residency programs to produce these providers. A new course about abortion care is being developed in Newfoundland & Labrador, aimed at all health professional students and general medical practitioners in the province. The goal of this interdisciplinary course is to increase knowledge about abortion care among health professionals in this province. Long-term, increased knowledge and comfort with abortion care may increase available providers in the province, thereby improving access.

Objective: The purpose of this study is to assess the impact of the abortion care course on health care professional students and practitioners in Newfoundland and Labrador.

Methods: This will be a cross-sectional study among health care professional students and practitioners, with a before and after design to assess the impact of an online course on knowledge and stated intent to provide abortion services.

A pre-course survey will be administered with questions about registrants' previous exposure to abortion education, their intent to provide this care and in what setting, and questions testing their existing knowledge about abortion. A post-course survey will also be provided to assess knowledge acquired.

Descriptive statistics will be used for baseline data and post-course evaluation. The knowledge test will be scored out of 10, and the difference between the pre-test and post-test will be tested for using either a paired samples T test or a Wilcoxon signed-rank test.

Results: Pending.

Conclusion: Pending.

GESTATIONAL WEIGHT GAIN IN WOMEN WITH PRE-EXISTING GESTATIONAL DIABETES

Wong K, Murphy P, Crane J

Memorial University of Newfoundland

Background: Guidelines for gestational weight gain (GWG) were developed based on a general obstetrical population, and although recommendations are based on pre-pregnancy body mass index (BMI), there are no specific recommendations for women with pre-existing medical conditions, such as diabetes mellitus.

Objectives: The objectives of this study are to determine: 1) if there is increased GWG in women with pre-existing diabetes (PDM) compared to women with no diabetes; 2) if there is increased excessive GWG in women with PDM, and 3) if women with PDM and excessive GWG are at increased risk of poor outcomes such as C-section, large for gestational age (LGA) infants, macrosomia, or neonatal intensive care unit (NICU) admission.

Methods: This is a retrospective cohort study utilizing data from the Perinatal Surveillance Database NL among women delivering at the Health Sciences Centre in St. John's, Newfoundland. Women with pre-existing type 1 or 2 diabetes mellitus will be compared to women without a diagnosis of diabetes. Planned analyses include Student's t-test or Mann Whitney U test, X^2 test, and multivariate logistic regression analyses.

Results: Women with PDM are more likely to have excessive GWG compared to women without diabetes (67% vs. 60%, $p=0.02$). When controlling for other covariates, such as age, BMI, smoking, and parity, pre-existing diabetes and gestational weight gain remain independent predictors for increased rates of macrosomia, LGA, and C-section (Table 1). Women with pre-existing diabetes who gain below the recommended target have higher rates of LGA and C-section compared to women without diabetes who gain at target.

Conclusion: In women with pre-existing diabetes, the effects of excessive gestational weight gain are compounded by the condition of diabetes. Women with pre-existing diabetes may require lower GWG targets.

PART 2: GUEST SPEAKER



THE SCIENCE AND PRACTICE OF MINDFULNESS IN WOMEN'S SEXUAL HEALTH

LORI BROTTTO, PHD
Professor, University of British Columbia
Executive Director, Women's Health Research Institute
Vancouver, British Columbia

Dr. Lori Brotto is a Professor in the UBC Department of Obstetrics and Gynaecology, and a Registered Psychologist in Vancouver, Canada. She is the Executive Director of the Women's Health Research Institute of BC located at BC Women's Hospital. Dr. Brotto holds a Canada Research Chair in Women's Sexual Health. She is the director of the UBC Sexual Health Laboratory where research primarily focuses on developing and testing psychological and mindfulness-based interventions for women with sexual desire and arousal difficulties and women with chronic genital pain. Dr. Brotto is an Associate Editor for the Archives of Sexual Behavior, has >170 peer-reviewed publications, and is frequently featured in the media on topics related to sexuality. Her book, *Better Sex Through Mindfulness: How Women Can Cultivate Desire* (2018) is a trade book of her research demonstrating the benefits of mindfulness for women's sexual concerns. She is a strong advocate for empowering women to take on leadership roles. Her current knowledge translation project, #DebunkingDesire, uses social media to debunk myths about sexual desire and share findings from the scientific literature on the nature of women's sexual desire.

PART 3: ORAL PRESENTATIONS

THE MATERNAL AND PERINATAL OUTCOMES OF METHADONE USE IN PREGNANCY: A SINGLE-CENTER RETROSPECTIVE COHORT STUDY FROM 2005-2018

Comerford A, Ryan R, Murphy P, O'Brien D, Crane J
Memorial University of Newfoundland

Objective: To compare the maternal and neonatal outcomes and rates of complications between live, singleton pregnancies of patients using methadone with those who do not at our center.

Methods: A retrospective cohort study of females with live, singleton pregnancies who delivered at the Health Sciences Center between April 2005 and December 2018 will be performed. Data will be provided by the Newfoundland & Labrador Provincial Perinatal Program. The primary outcome will be to compare the rate of congenital anomalies among neonates of patients using methadone with those who do not. Further analyses will be performed to compare several maternal and neonatal demographics, outcomes, and complications.

Results: Pending.

Conclusion: Pending.

DOES LIVE FEEDBACK IMPROVE LAPAROSCOPIC SKILLS FOR JUNIOR SURGICAL RESIDENTS USING AT HOME BOX TRAINERS DURING COVID-19?

Harris C, Thorburn C, Skanes C, Kennedy R, Smith C
Memorial University of Newfoundland

Objective: To determine if real-time feedback is superior to other forms of feedback on junior resident performance of basic laparoscopic skills using a low-cost, at home laparoscopic training box during a global pandemic. Furthermore, to assess whether the box trainers improve junior learner confidence and improve their speed of task completion while using the laparoscopic box trainers.

Methods: A prospective qualitative and quantitative approach was used in the design of this study. Twelve junior surgical residents (PGY1-3), training at Memorial University, were selected and randomized to the control group or to one of the two intervention groups. The three groups were followed for four months and were encouraged to practice a set of prescribed laparoscopic skills twice weekly, with the intervention groups receiving delayed or live feedback on their practice. Pre- and post-testing were completed at the beginning and end of the four-month time period as well as a post-testing survey was administered at the end of the study. Primary outcome measures were (1) confidence in basic laparoscopic skills, (2) speed, and (3) improvement in skills as per a validated assessment tool.

Results: This study received ethical approval from the HREB (# 2020.105). Twelve junior surgical residents were recruited as study participants and then randomized to either the control group or to one of the two intervention groups. One resident was lost to follow up due to COVID restrictions. Final data on primary and secondary outcomes are pending but initial analysis suggests that residents enhanced their confidence in laparoscopic skills. Participants in the immediate feedback group felt that they were motivated to improve were more efficient in their improvements, and did not adopt 'bad habits'. Between group analysis on speed of task completion is pending.

Conclusion: Pending.

IMPACT OF COVID-19 RELATED RESTRICTIONS ON PREGNANT WOMEN IN ST. JOHN'S, NEWFOUNDLAND AND LABRADOR

Gill S, Wong K, and Cook C

Memorial University of Newfoundland

Background: The COVID-19 pandemic has impacted obstetrical care. This change is driven by patients, healthcare providers, and healthcare systems. In St. John's, NL, policy changes have been fluctuating throughout the pandemic. Over the last 13 months, changes have included having the patient attend visits alone, including routine antenatal and ultrasound appointments, emergency, and case room visits.

Objective: The objectives of this study are to explore pregnant women's experiences related to the above changes in policy; their opinions of the changes; and the response of their attending obstetricians in managing care during this pandemic.

Methods: This will be a mixed-methods study utilizing an explanatory sequential design in two parts. The first part will explore the experiences and opinions of patients using a questionnaire and follow-up semi-structured interviews. The second part will explore how obstetricians have changed their practices in response. Descriptive statistics will be used to summarize patient characteristics and questionnaire data. Interviews will be transcribed, and subsequently coded by two researchers. A grounded-theory approach will be taken to theme development.

Results: Pending.

Conclusions: Pending.

CASE REPORT: PRIMARY SEMINAL VESICLE SMOOTH MUSCLE NEOPLASM OF UNCERTAIN BIOLOGIC POTENTIAL

Roy C, Drover D

Memorial University of Newfoundland

Introduction: We present the case of a 73-year-old male patient with obstructive urinary symptoms who was found to have a benign prostate with a seminal vesicle mass classified as an epithelioid smooth muscle neoplasm of uncertain biologic potential. This is only the second known case in the literature of such a seminal vesicle tumour.

Case: Our patient is a 73-year-old male who presented with obstructive urinary symptoms, increasing pelvic pressure, and subsequent hematuria. CT imaging revealed a heterogenous prostate enlargement, and further characterization by MRI demonstrated the heterogenous mass to be arising from the seminal vesicle. Prostate biopsies showed benign tissue. Surgical excision of the seminal vesicle mass was completed and sent to pathology; this revealed it to be an epithelioid smooth muscle neoplasm of uncertain biologic potential.

Comment: We present details of the case and review our surgical approach and diagnostic features, and their implications for management. As soft tissue sarcomas of the seminal vesicle emerge in the literature, we may develop a better understanding of their biologic behaviour and prognostic potential.

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