Understanding Abortion Care in New Brunswick Emergency Departments

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Background and Objectives: In New Brunswick (NB), the emergency department (ED) is an important setting responsible for providing many forms of reproductive health care, yet the role of the NB ED in providing abortion services remains unclear. This is increasingly important as limited primary care access in NB has resulted in more patients turning to EDs for primary care concerns, including reproductive health care. This study aimed to understand the experiences of health care providers working in NB EDs with respect to abortion care.

Methods: I conducted semi-structured interviews with physicians, medical residents, and nurse practitioners working in NB EDs. I performed reflexive thematic analysis of the qualitative data to generate themes.

Results: I collected data from six participants. Three key themes emerged: (1) The ideal abortion; (2) The role of the ED provider; (3) Referral over provision. Subthemes included The ED as a safety net, and Knowledge limits care.

Discussion: Findings suggest that ED health care providers often balance the competing priorities of ideal care versus accessible care within the realities of emergency medicine. Notably, the ED is increasingly viewed as a safety net for patients facing barriers to community care; however, direct provision of abortion care in the ED is uncommon. Patients seeking abortion care are often referred elsewhere, a practice that is largely influenced by provider knowledge and comfort, by perspectives on the role of the ED, and by perceptions around the ability to provide patients with "ideal" abortion care in an ED setting.

Conclusions: Findings highlight opportunities to address ED provider knowledge gaps related to abortion care; likewise, findings suggest there is a need to clarify and strengthen abortion care pathways for patients seen in NB EDs. Future research should explore patient perspectives and priorities to further inform patient-centred abortion care delivery in NB.

Keywords: abortion; emergency department; provider perspectives

The infection hypothesis of Modic changes: evidence from a contamination-controlled surgical cohort

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Background and Objectives: The infection hypothesis of MC has been the subject of ongoing debate. Overall, the evidence to support occult discitis as the cause of LBP remains inconsistent. To our knowledge, this is the first study to use 16S rDNA PCR, combined with long-term incubation cultures and a matched control tissue sample. We believe this is the first study allowing for a distinction between procedural contamination versus true infection. In addition, validated patient-reported outcomes of pain and disability were collected to potentially correlate with the microbiology.

Methods: This was a prospective observational cohort study conducted at the QEII hospital in Halifax, Nova Scotia. The cohort consisted of 83 patients undergoing an elective primary discectomy targeting the LDH and radiculopathy symptoms. During the elective discectomy, sterile biopsy forceps were used to collect four-disc nuclear tissue samples (~0.5 cm^2) from each patient. In addition, four specimens of the ligamentum flavum (typically removed and discarded during surgery) served as matched control tissue. Samples were immediately processed on arrival to the microbiological laboratory and incubated on aerobic, anaerobic, and microaerophilic media for a minimum of 14 days. The identity of bacteria from any positive cultures was determined via matrix-assisted laser desorption/ionization time-of-flight (MALDI-ToF) analysis. All specimens were subjected to broad range 16S rDNA PCR to assess for the presence or absence of bacterial DNA.

Results: Mean age within the cohort was 43.3 ± 13.3 years, and the mean BMI was 28.7 ± 5.3 kg/m^2. Baseline demographic or imaging characteristics did not differ significantly between the MC type 0 and MC type 2 groups; no MC type 1 changes were observed in the entire cohort. Microbiological analysis revealed no evidence of true disc infection. No highly virulent organisms were isolated, and positivity was more common in control tissues (22.9%) than disc specimens (14.5%). All specimens were negative by 16S rDNA PCR. No one organism was concordantly isolated from both a disc and its matched control tissue. Ninety-two percent of cultures were a single colony. The positivity of cultures did not differ significantly between MC types, but it was numerically higher in patients with MC type 2. None of these organisms were virulent, and all 16S rDNA PCRs were negative. MC type was not meaningfully associated with any of the recorded PROMs.

Discussion: Previous studies reporting bacterial growth from disc material of similar surgical cohorts have not been able to distinguish contamination from true infection. Like previous studies, culture-positive isolates in the current study were single-colony growths of low-virulence organisms. Markedly, this study included the ligamentum flavum as a matched control tissue, allowing for direct assessment of possible contamination. The control tissues were more frequently positive than the disc specimens. No one species showed concordant growth on both its disc and ligament culture; all 16S rDNA PCR assays were negative

Conclusions: In summary, for this cohort of post-discectomy LDH patients, there was no evidence of occult discitis. 16S rDNA PCR yielded no positive assays, and all positive cultures represented a pattern of contamination. Furthermore, the MC phenotype was not associated with positive cultures or any clinically meaningful changes to pain, disability, or quality of life.

Keywords: Modic changes; low back pain; lumbar disc herniation