these pioneers have endured and are now extensively employed by neurosurgeons worldwide.[4,5] Dr. Hardy was made officer of the Order of Canada in 1987, and chevalier of the Ordre National du Québec in 1989.

The contribution of the department in the advancement of breast cancer surgeries and treatments is undeniable, making them less mutilating and increasing survival with numerous publications and participation in National Surgical Adjuvant Breast and Bowel Project (NSABP) randomized controlled trials. Under the mentorship of Dr. Bernard Fisher, Dr. Andre Robidoux became the Director of the Clinical Research Group for breast cancer at Hotel-Dieu and brought NSABP-sponsored trials to more than 5000 breast cancer patients in Montreal. This was supported by 1 of 3 awarded National Cancer Institute treatment and prevention grants for 27 years. In 2010, Dr. Robidoux was a recipient of the Distinguished Investigator Lifetime Achievement Award in recognition of his extraordinary commitment to the NSABP and oncology research. He served as an elected member of the NSABP Foundation board of directors for many years.

Laparoscopic surgery in the early 1990s led to extraordinary developments at the Hotel-Dieu de Montreal, an hospital affiliated with the Université de Montréal. Adrenal surgery changed course with the first report of laparoscopic adrenalectomy (using the lateral decubitus approach) for Cushing syndrome and pheochromocytoma in the *New England Journal of Medicine* in 1992.[6] This new laparoscopic position also led to facilitating laparoscopic splenectomy in the lateral decubitus, first performed at Hotel-Dieu and now practised worldwide. The first laparoscopic distal and proximal pancreatectomies were also performed in 1992 and 1993, and the first report of laparoscopic liver resection was in 1991.[7,8] Also the developmental research of endoscopic thyroidectomy using a porcine model at the Research institute of the Hotel dieu de Montreal led to the first world endoscopic neck surgery the following year at the Cleveland Clinic, and the first endoscopic parathyroidectomy in Canada a few years later, also at the Hotel Dieu de Montreal.[9]

I have mentioned only a few surgeons and techniques, and I am sure the list can be elongated.

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References

1. Carrier M, Guertin L, Latulipe JF, et al. The Department of Surgery of the Université de Montréal, 70th anniversary. *Can J Surg* 2020;63:E578-80.
2. Samuels PB. Evolution of the in situ bypass. *Am J Surg* 1987;154:248-52.
3. McPhail NV. The history of vascular surgery in Canada. *Can J Surg* 1995;38:229-37.
4. Patel SK, Husain Q, Eloy JA, et al. Norman Dott, Gerard Guiot, and Jules Hardy: key players in the resurrection and preservation of transsphenoidal surgery. *Neurosurg Focus* 2012;33:E6.
5. Liu JK, Das K, Weiss MH, et al. The history and evolution of transsphenoidal surgery. *J Neurosurg* 2001;95:1083-96.
6. Gagner M, Lacroix A, Bolté E. Laparoscopic adrenalectomy in Cushing's syndrome and pheochromocytoma. *N Engl J Med* 1992;327:1033.
7. Gagner M, Rheault M, Dubuc J. Laparoscopic Partial Hepatectomy for liver tumors. *Surg Endosc* 1992;6:99.
8. Gagner M, Pomp A. Laparoscopic pylorus-preserving pancreatoduodenectomy. *Surg Endosc* 1994;8:408-10.
9. Gagner M. Endoscopic subtotal parathyroidectomy in patients with primary hyperparathyroidism. *Br J Surg* 1996;83:875.

THE UNEXPLORED ROLE OF METOCLOPRAMIDE: A NON-OPIATE ANALGESIC FOR ACUTE PAIN MANAGEMENT

Rozario presents the surgical dilemma of use and abuse of opioids in pain management in surgical patients.[1] Besides the integrated systems approach detailed by Rozario, I offer my experience with metoclopramide (MTCL) as a useful non-opiate agent for managing acute severe pain, surgical or nonsurgical.[2–4] While consensus statements and guidelines have proven insufficient to overcome opioid abuse, the definitive pharmacologic basis of the analgesic action of MTCL is a welcome addition, but one that is largely ignored. I have used MTCL 20 mg as slow IV bolus (over 2 minutes) and up to 60 mg in GNS 500 mL drip for severe headache, refractory migraine, and nonspecific abdominal pain as an early management strategy with good results (unpublished observations). Care should be exercised in administering MTCL. I always administer MTCL bolus myself rather asking nurses/nursing attendees to do so. Mild sedation, diarrhea and reversible extrapyramidal reactions can occur without long-term or cumulative adverse effects.

Besides its routine antiemetic effect, MTCL releases vasopressin, which in conjunction with serotonin and noradrenaline, forms a powerful adaptive nexus with brain neuronal antinociceptive, vasomotor, and behavioural functions,[5–7] all of which are useful in the postoperative state.

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References

1. Rozario D. A systems approach to the management of acute surgical pain and reduction of opioid use: the approach of Oakville Trafalgar Memorial Hospital. *Can J Surg* 2020;63:E606-8.
2. Gupta VK. Metoclopramide is not an analgesic: reflection on premature scientific conclusion. *Int J Clin Pract* 2006;60:744.
3. Gupta VK. Reader response: Characterizing opioid use in a US population with migraine: Results from the CaMEO study. *Neurology* 2020. Available: https://n.neurology.org/content/reader-response-characterizing-opioid-use-us-population-migraine-results-cameo-study-0 (accessed 2021 April 6).
4. Gupta VK. Metoclopramide aborts cough-induced headache and ameliorates cough — a pilot study. *Int J Clin Pract* 2007;61:345-8.
5. Gupta VK. A clinical review of the adaptive role of vasopressin in migraine. *Cephalalgia* 1997;17:561-69.
6. Gupta VK. Pathophysiology of migraine: an increasingly complex narrative to 2020. *Fut Neurol* 2019;14:doi.org/10.2217/fnl-2019-0003.
7. Gupta VK. *Adaptive mechanisms in migraine. A comprehensive synthesis in evolution. Breaking the migraine code*. New York: Nova Science Publishers; 2009.

Author response to "The unexplored role of metoclopramide: a non-opiate analgesic for acute pain management"

Thanks to Dr. Gupta for his response. While I am aware of the use of metoclopramide in the management of migraines, in my practice and literature review I have not seen its application in multimodal post-operative pain control and would be very interested in further research.

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A novel approach for postoperative pain management after discharge

I welcomed the article by Dr. Duncan Rozario, who described the necessary preoperative patient pain education and need for multimodal analgesia in the intra- and postoperative phase.[1] The incorporation of intraoperative regional anesthesia is also highlighted and welcomed from a postoperative opioid-sparing profile. In my experience, surgeons do not always have the experience in managing complex pain patients who then undergo surgery for postoperative pain management. Such patients in my experience have difficulty managing their postoperative pain and frequently visit the emergency department for further pain management or poorly managed pain with escalating opioids. There is also an opportunity, especially with orthopedic trauma, amputation, thoracic and other high-risk surgeries, for patients who have pre-existing factors that increase the risk of developing postoperative surgical pain syndrome.[2] Such patients can be referred preemptively to the acute pain service and for follow-up at a reputable community-based pain clinic or a transitional pain service if available.

My recommendation for improving service provision to help bridge the gap for patients with complex postsurgical pain leaving the hospital back into the community is a transitional pain service such as the one at Toronto General Hospital.

This is a novel clinical model that provides specialized pain management strategies for patients who require care plans and strategies to help facilitate discharge. Patients are then seen in the outpatient setting to help increase functioning, optimize pain control, and receive support.

A transitional pain service team also has the ability to follow patients from the point of preadmitting, before a surgery takes place, to review pain management techniques and to prepare for what can be expected during their hospital stay, education and community support. Community support can be in the form of outpatient clinics, or with follow-up at a local community pain clinic.

Other facets of a transitional pain service are to identify patients with opioid dependency, to minimize adverse effects of pain management and to incorporate a multimodal multidisciplinary care when appropriate. Adverse effects related to opioids include nausea, constipation, sedation, and cognitive issues and may lead to further morbidity and hindrance of recovery.

If there is no transitional pain service available, then attempt to liaise with a community pain clinic for patients to be followed up urgently for complex pain management to facilitate opioid management, rehabilitation services and psychosocial support. This is only possible by developing strong relationships with reputable community pain physicians and clinics.

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