

Surgical Oncology Network Newsletter

ISSUE 29, SUMMER 2016 | www.bccancer.bc.ca

Surgical Oncology Network

CHAIR

Dr. Chris Baliski
cbaliski@bccancer.bc.ca

COMMITTEE CHAIRS

CLINICAL PRACTICE

Dr. Noelle Davis
noelle.davis@bccancer.bc.ca

CONTINUING PROFESSIONAL DEVELOPMENT & KNOWLEDGE TRANSFER

Dr. Elaine McKeivitt
emckeivitt@providencehealth.bc.ca

RESEARCH & OUTCOMES EVALUATION

Dr. Carl Brown
cbrown@providencehealth.bc.ca

In This Issue...

Highlights from the SON Fall Update 2015..... 1

New Heuristics for the Management of Thyroid Nodules in Children..... 3

Recent Articles of Interest..... 4

Cancer-Care Resources for Family Physicians in BC..... 4

LOWER GI TRACT CANCERS: HIGHLIGHTS FROM THE SON FALL UPDATE

The SON hosted the annual Fall Update, *GI Tract Cancers: From Top to Bottom*, on November 7, 2015 in Vancouver. This article summarizes the lower GI tract talks presented in the afternoon session. All presentations from the event are viewable on the Surgical Oncology Network website at www.bccancer.bc.ca/health-professionals/networks/surgical-oncology-network/fall-update



LEFT TO RIGHT: DR. CARL BROWN, DR. MANOJ RAVAL, DR. NATALIE COBURN, DR. ERIN KENNEDY, DR. ELAINE MCKEVITT, AND DR. TREVOR HAMILTON



DR. MANOJ RAVAL
CHAIR, SON
COLORECTAL
SURGICAL TUMOUR
GROUP

CPAC National Rectal Cancer Quality Improvement Initiative

The afternoon session focused on lower GI tract malignancies, and our keynote speaker, Dr. Erin Kennedy (colorectal surgeon, Toronto), gave an excellent presentation outlining the Canadian Partnership Against Cancer (CPAC)-funded national Rectal Cancer Project she spearheaded. This is a multi-year, multi-discipline project across eight centres in Canada designed to improve oncologic outcomes by ensuring implementation of evidence-based quality initiatives and measures for rectal cancer. These include preoperative local staging with MRI, multi-disciplinary conference (MDC) for every patient, high quality total mesorectal excision and radiotherapy, and detailed pathology assessment using the “Quirke” protocol. The ultimate goals are to identify and implement strategies to close gaps in care and to reduce unwarranted variation. With these eight

high-volume centres taking the lead, it is hoped that this model can be widely disseminated to all centres caring for rectal cancer patients.

Dr. Kennedy outlined the methodology used to develop the 58 process indicators identified across all relevant disciplines including radiology, MDC, radiation oncology, surgery, and pathology. A

MARK YOUR CALENDARS!

SON FALL UPDATE 2016

*Management of Liver, Pancreas
Melanoma and Breast Cancers*

October 22, 2016
Four Seasons Hotel
Vancouver

unique aspect to this study was patient and caregiver engagement, which was highly valued by those who participated.



CANADIAN CENTRES PARTICIPATING IN CPAC RECTAL CANCER PROJECT

Data collection started in April 2015 with periodic audits and feedback every three months, and Dr. Kennedy demonstrated that while there was enthusiastic participation from all eight centres, there were significant variation between centres in many of the process indicators. There did seem to be improvement between audit periods, but Dr. Kennedy emphasized there was room to improve further. A meeting in Toronto in April 2016 planned to review results in detail by all eight centres and to determine sustainability.

Rectal Cancer and Transanal Excision

Drs. Manoj Raval and Carl Brown (colorectal surgeons, St. Paul's Hospital) then discussed the emerging role of transanal endoscopic microsurgical (TEM) resection for rectal cancer. Originally developed for improved excision of non-malignant lesions in the rectum, evidence is mounting that TEM is appropriate for rectal cancer surgery in highly select patients. They presented a brief overview of the history and techniques used in TEM surgery. They stressed that there is a gold standard for rectal cancer (radical TME) that has excellent results and that TEM should be evaluated against this standard, even considering the significantly less morbidity that TEM offers. Through the presentation of four cases from actual patients (with variations), they presented peer-reviewed studies of TEM in rectal cancer.

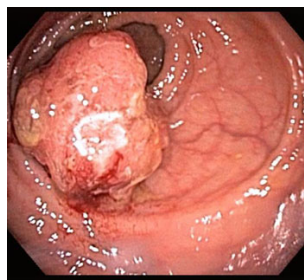
Studies have shown that overall, oncologic outcomes are better for radical surgery, but highly selected, 'favourable' T1 cancers (low grade, no lymphovascular invasion, early T1) treated with TEM can have outcomes approaching those of TME surgery. In addition, it may be appropriate to offer patients with significant comorbidities TEM resection, after careful informed consent regarding this option versus standard surgery.

The role of neoadjuvant radiation added to TEM resection adds further complexity. There is some evidence that TEM plus radiation may be oncologically equivalent to radical TME surgery, even for some patients who have T2 or T3 cancer. Data from the CARTS study suggests that patients with T1-T3N0M0 cancer who respond well to radiation can undergo TEM instead of TME with good results, relying on careful and repeated evaluation to select out those few patients who should go on to major surgery. It was strongly advised that such patients should be treated this way in the context of a study and fully informed consent.

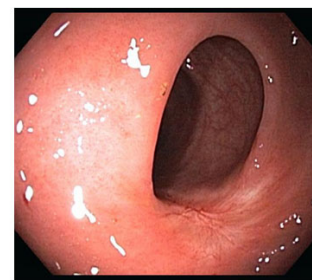
With any patients undergoing TEM instead of TME, intensive follow-up was stressed, in an effort to detect local and distant recurrences as early as possible. Guided by temporal and anatomic patterns of recurrence from previous series, a surveillance protocol was proposed which entailed clinic visits and endoscopy every 4-6 months, CT scan every 6-12 months, and CEA testing. This has been endorsed by the BCCA GI Tumour Group, the BCCA SON, and BC colorectal surgeons. In the event of a recurrence, data is variable but larger centres have reported favourable outcomes with aggressive resection.

Dr. Brown then presented a novel technique of combined laparoscopic and TEM-assisted rectal resection, where the TME dissection is performed transanally using the TEM platform. This result in the patient having only port-site incisions in the abdomen. This approach is currently experimental.

The conclusion was that there is a role for TEM in rectal cancer surgery, but this involves careful patient selection, full informed consent, and intensive followup, with the recommendation that this be done in higher volume regional centres.



Preop Image



1 Year Later

TEM - ENDOSCOPIC FOLLOW UP

Treatment Decisions - Multimodality Treatment of Colorectal Cancer

Dr. Kennedy then returned to the podium to discuss management of colorectal cancer with liver metastases. The controversy and difficulties relate to whether the liver metastases should be addressed first versus the primary cancer, or a combined approach. In general, the treatment strategy is highly influenced by resectability of the liver lesions and symptoms caused by the primary cancer.

She emphasized that preoperative evaluation of the liver is of paramount importance, categorizing the disease as resectable, borderline (possibly curative), or unresectable. Patients that fall into these categories have changed over time, with multiple or bilobar lesions no longer considered absolute contraindications to resection. In addition, non-resective methods of treatments such as radiofrequency ablation and intra-arterial chemotherapy in addition to traditional systemic chemotherapy are available. For all these reasons, a liver surgeon should be involved as early as possible in these patients' care.

Symptoms caused by the primary may be obvious such as perforation, bleeding or obstruction, but patients who are 'asymptomatic' may actually have symptoms if carefully questioned, and these must be followed carefully if immediate resection of the primary is not done. A study of 233 patients with stage IV disease receiving chemotherapy first revealed that 11% of patients developed complica-

tions from the primary tumour. Two thirds of these patients (7% of the whole cohort) required surgery while the remainder were treated with stent or radiation.

In general, asymptomatic patients with unresectable metastases in the liver are essentially palliative and should receive chemotherapy as early as possible. Surgery is reserved for complications from the primary (resection versus diversion), or not performed at all if life expectancy is less than twelve weeks.

For patients with 'borderline' liver metastases the priority is to initiate chemotherapy as soon as possible. Patients who have symptoms should have surgery to resect the primary (with or without diversion) for colon cancer and diversion only for rectal cancer. If there are no symptoms, there is evidence that neoadjuvant chemotherapy, followed by liver resection, then subsequent primary resection, may play a role. In the case of rectal cancer, the patient would have long course chemoradiation after recovery from hepatectomy.

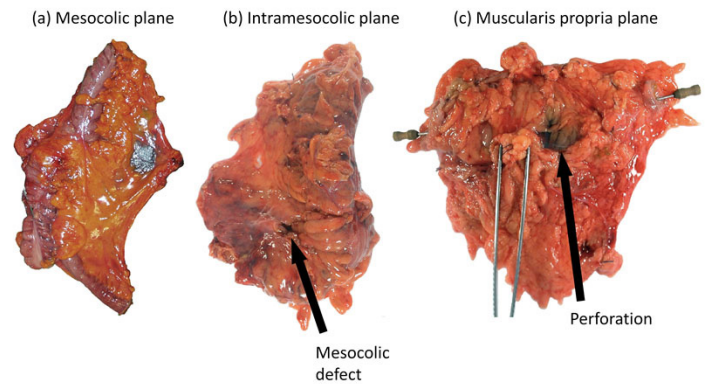
In patients with definitely resectable liver metastases, a traditional approach of addressing the primary lesion first, followed by liver resection, is appropriate. In select cases, a combined approach may be considered. Also, if the patient has rectal cancer, consideration should be given to short course radiation rather than long course.

Dr. Kennedy reminded the audience that there is no high quality evidence to guide treatment, which is individualized and would highly benefit from MDC. Disease and patient factors are critical.

Synchronous Lesions and Cases

Dr. Brown then concluded the afternoon by presenting a topic requested by community general surgeons - synchronous lesions in colorectal cancer. In most cases, synchronous cancers are in the same anatomic segment (i.e., same lymph node basin and vascular

supply). As such, if the concept of complete mesocolic excision (high ligation of feeding vessels and complete lymph node basin resection) is followed, lesions within the same anatomic segmented will be resected appropriately anyway, and therefore may not present a major alteration to the surgical plan. A study from Denmark showed significant improvement in disease free survival if complete mesocolic excision is performed.



COMPLETE MESOCOLIC EXCISION

In addition, most studies addressing synchronous lesions have not shown significant detriment to survival compared to patients with solitary cancers, but this may depend on aggressive postoperative chemotherapy, even if all synchronous lesions are stage II. These patients can be considered 'stage III equivalent.'

Finally, Dr. Brown presented an interesting case of a patient with a rectal adenoma and synchronous right colon cancer. The rectal adenoma was managed with TEM and a subsequent right hemicolectomy. The rationale was that the rectal lesion needed to be established as benign. If it returned as a malignancy, this patient's management may have entailed proctocolectomy or systemic chemotherapy.

NEW HEURISTICS FOR THE MANAGEMENT OF THYROID NODULES IN CHILDREN

Dr. Geoffrey Blair, Pediatric Surgeon & Dr. Danya Fox, Clinical Fellow, Pediatric Endocrinology BC Children's Hospital & UBC

The management of children with thyroid nodules varies across Canada¹. Recently, the Canadian Pediatric Thyroid Nodule (CaPTN) Study Group identified several areas of inconsistency in the management of 141 pediatric patients who underwent resection of thyroid nodules between 2000 and 2005 in nine tertiary care pediatric centres across Canada. These included the extent and nature of pre-operative investigations, the use of fine-needle aspiration (FNA) biopsies, and the choice of initial surgical procedure.

We may suppose that this unwarranted clinical practice variation stems from the lack of widely-adopted guidelines directing the management of thyroid nodules in children. We may also suppose that a similar, and perhaps significant, practice variation exists in the community. Without clear guidelines, there may be a tendency to treat children with nodular thyroid disease simply as "small adults." The potential repercussions of this are significant, given the risk of malignancy within pediatric thyroid nodules is four-fold higher than in those presenting in adults and yet differentiated thyroid cancer (DTC) in the young patient appears to have a better prognosis².

Accordingly, there is the potential harm of both under-treatment and over-treatment. The increasing incidence of DTC in the pediatric population further heightens the need for greater guidance in this

area³. It appears likely that the biology of thyroid nodular disease in children and adolescents, including DTC, is different from adults, but this has yet to be studied in detail.

In 2015, for the first time, there was published a seminal paper: "Management Guidelines for Children with Thyroid Nodules and Differentiated Thyroid Cancer"⁴. This was generated by The American Thyroid Association Guidelines Task Force on Pediatric Thyroid Cancer, and represents the best and most comprehensive review of the current evidence that can guide us in investigating and treating children with thyroid nodules and cancer.

The existence of these pediatric-specific guidelines needs to be disseminated. The nuances of care and differences from adult management can only be appreciated with detailed study of the aforementioned 2015 ATA pediatric guidelines. As many of you have likely experienced, thyroid nodules in children can present unique challenges. Their presentation is exceedingly variable and often strange and, as mentioned, their nodules more often prove cancerous as compared to adults. Interpreting and adapting the 2015 guidelines can be challenging in these less than conventional pediatric cases. These guidelines have already instigated change at British Columbia Children's Hospital (BCCH). With the goal of aligning with the evi-

dence-based guidelines and reducing clinical practice variation, we have invoked a multidisciplinary team to guide the management of nodular thyroid disease. Having an agreed upon algorithm of management, from intake to follow-up, should reduce unwarranted clinical practice variation. Regular multidisciplinary team meetings and mandated tumour board discussions both at BCCH and the BC Cancer Agency will build our collective expertise. Investigations including FNA and core needle biopsies have been standardized and cytological reads are done at the BC Cancer Agency, using the Bethesda system to report the results. Treatments include medical, surgical and radiotherapy modalities, depending on the pathology.

With regards to surgical options, it is acknowledged that access to an experienced surgeon is foundational in avoiding recurrent laryngeal nerve damage, permanent hypoparathyroidism and other complications. Therefore, we have designated one pediatric surgeon to perform all of the pediatric thyroid operations, in order to concentrate thyroid surgery experience given the relative rarity of these cases. When necessary, we partner with adult endocrine surgeons, though the surgery will always be performed at BCCH. This is to ensure that the peri-operative care, endocrine care and follow-up meet the unique care needs of the pediatric population.

The establishment of pediatric-specific ATA guidelines was a critical step in advancing the care of children and adolescents with thyroid nodules. In keeping with this goal, we are hopeful that using a multidisciplinary approach will enhance the quality of care that our patients receive, and ultimately improve clinical outcomes.

KEY POINTS

- *Thyroid nodules in children are up to four times more likely to be malignant in comparison to adults,*
- *Baseline investigations should include a serum TSH, chest x-ray and ultrasound,*
- *FNA should always be ultrasound guided, and ideally in children and youth, under sedation,*
- *Bethesda cytopathologic reporting is encouraged,*
- *Optimal management at all phases includes a multidisciplinary team approach which includes an endocrinologist and an experienced thyroid surgeon,*
- *Utilize the ATA pediatric guidelines to reduce unwarranted clinical practice variation.*

References for this article available on the BC SON website: www.bccancer.bc.ca/health-professionals/networks/surgical-oncology-network/newsletter

RECENT ARTICLES OF INTEREST

Disparities in Use of Human Epidermal Growth Hormone Receptor 2–Targeted Therapy for Early-Stage Breast Cancer

Reeder-Hayes K, Hinton SP, Meng K, Carey LA and Dusetzina SB

American Society of Clinical Oncology. 2016 Apr 11. www.jco.ascopubs.org/content/early/2016/04/07/JCO.2015.65.8716.short?rss=1

Breast Cancer Genetics for the Surgeon: An Update on Causes and Testing Options

Grignol VP, Agnese DM

Journal of the American College of Surgeons. 2016, 222 (5): 906-14. <http://www.ncbi.nlm.nih.gov/pubmed/26968323>

Growing Use of Contralateral Prophylactic Mastectomy Despite No Improvement in Long-term Survival for Invasive Breast Cancer

Wong SM, Freedman RA, Sagara Y, Aydogan F, Barry WT, Golshan M

Annals of Surg Oncol. 2016 Mar 8. <http://www.ncbi.nlm.nih.gov/pubmed/26967636#>

Noninvasive Encapsulated Follicular Variant of Papillary Thyroid “Cancer” (or Not)

Patel KN

JAMA Oncol. 2016 April 14. <http://oncology.jamanetwork.com/article.aspx?articleid=2513246>

CANCER-CARE RESOURCES FOR FAMILY PHYSICIANS IN BC

Two new cancer-care clinical practice guidelines are available on the Family Practice Oncology Network (FPON) website: **Upper Gastrointestinal Cancer (Suspected) – Part 1** (focuses on cancers of the esophagus and stomach); **Part 2** (includes cancers of the duodenum, pancreas and extrahepatic biliary tract). <http://www.bccancer.bc.ca/health-professionals/networks/family-practice-oncology-network/guidelines-protocols>

The FPON working group included practising family physicians and specialists from oncology, gastroenterology and general surgery. The recommendations were adapted from the BCCA Gastrointestinal Cancer clinical practice guidelines, and were developed in their final form based on the review and evaluation of clinical evidence published since the BCCA guideline recommendations were developed, as well as expert clinical opinion and external peer review.

SURGICAL ONCOLOGY NETWORK NEWSLETTER

Editor: Dr. Elaine McKeivitt
Managing Editor: Yasmin Miller
Design and Layout: Wade Stow

To submit article ideas or for information, please contact:

Yasmin Miller
T 604 877 6000 x 672410
E ymiller@bccancer.bc.ca

VISIT THE SURGICAL ONCOLOGY WEBSITE:
www.bccancer.bc.ca/health-professionals/networks/surgical-oncology-network

The BC Surgical Oncology Network exists to promote and advance quality cancer surgery throughout the province, enable the integration of quality surgical oncology services into the formal cancer care system, and ensure that patients have the best possible outcomes through consistent access to high quality multidisciplinary care. To enhance appropriate, equitable and timely access to surgical services for cancer patients as close to home as possible, the Network supports communication and sharing of knowledge between subspecialty and community surgeons, their respective hospitals and the BC Cancer Agency.