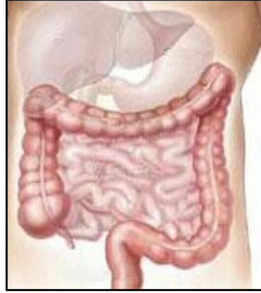
Colorectal Cancer
Association of Canada

COLORECTAL CANCER RESEARCH UPDATES

Month Ending November 16th, 2012



The following colorectal cancer research update extends from October 18th, 2012 – November 16th, 2012 inclusive and is intended for informational purposes only.

CONTENT

DRUGS / SYSTEMIC THERAPIES

1. Adjuvant Chemo May Offer Survival Benefit in Older Patients with Colon Cancer
2. Study Finds Why Roche's Avastin Only Works in Some Patients
3. Patient Preference Doesn't Affect Chemo in Advanced CRC

SURGICAL THERAPIES

4. Multimodal Treatment of Peritoneal Metastases Offers Hope for Many Patients with Colorectal Cancer

RADIATION/INTERVENTIONAL RADIOLOGY

5. Radioembolization Using Sirspheres Improves Overall Survival for Patients with Inoperable Colorectal Cancer in the Liver

SCREENING

6. Cancer Screening Reminders to be Co-ordinated in Ontario
7. Company Develops Simple Blood Test for Colorectal Cancer
8. British Columbia Announces Colorectal Cancer Screening Program

PSYCHOSOCIAL

9. End Of Life Talk Better if Sooner in Advanced Cancer

OTHER

10. Circulating Tumor Cells & CEA Levels Help Predict Survival in Metastatic Colorectal Cancer
11. Allergies and Fatal Colon Cancer
12. Risk of Colorectal Adenomas in Women with Prior Breast Cancer
13. Addressing Sexual Issues for Cancer Survivors
14. Chemotherapy Value Overestimated by Many Cancer Patients
15. Spread of Rectal Cancer to Lymph Nodes More Likely At Younger Age
16. Should All Colorectal Tumors Be Tested for Lynch Syndrome

NUTRITION / HEALTHY LIFESTYLE

17. Coffee Improves Bowel Function After Colon Surgery
18. Chronic Constipation Associated with Colorectal Cancer
19. Vitamin D May Prevent Colorectal Cancer
20. Green Tea Drinkers Show Lower Cancer Risk
21. High Carbohydrate Diet Linked to Increased Risk of Colon Cancer Recurrence
22. Smokers Fare Worse After Colon Surgery
23. Acupuncture May Help with Intestinal Healing

DRUGS / SYSTEMIC THERAPIES

1. **Adjuvant Chemo May Offer Survival Benefit in Older Patients with Colon Cancer** (Oct. 18/12)

Patients 75 years of age or older with stage III colon cancer may expect a survival benefit from adjuvant (post surgical) chemotherapy that rivals that previously reported in younger patients, according to a recent study. These results suggest that consideration of adjuvant systemic therapy is absolutely warranted for patients older than 75. The researchers evaluated the effectiveness of any adjuvant chemotherapy for patients aged ≥75 years with stage III colon cancer using information from four data sets. Overall, 5489 patients with resected stage III colon cancer who were diagnosed between 2004 and 2007 were included in the analysis. While individuals aged ≥75 years account for 40% of the colorectal cancer population in the United States and about 50% of colorectal cancer deaths, they are underrepresented in clinical studies of colorectal cancer chemotherapy. As a result, there are limited efficacy data for this group of patients, which means that their oncologists have no "clear standards to guide treatment decisions." The present study, which was undertaken to examine actual practice patterns and outcomes, found that the use of adjuvant therapy was inversely associated with increasing age and greater comorbidity. Chemotherapy receipt was associated with a survival benefit across the four groups. Researchers also examined whether the addition of oxaliplatin provided an additional survival benefit. Oxaliplatin has been shown to increase cure rates for resectable stage III cancer in clinical trials, but very few patients in the pivotal trials were aged ≥75 years, which means that the benefit shown in those studies had not been documented in the older population. The researchers' analysis found, however, that oxaliplatin offered no more than a small incremental benefit. The authors emphasized that their study was not able to measure quality of life. Thus, the effect of adjuvant therapy on quality of life in older patients with cancer remains an important unknown.

Sanoff HK, et al. Effect of adjuvant chemotherapy on survival of patients with stage III colon cancer diagnosed after age 75 years.* J Clin Oncol. *2012;30(21):2624-2634.

2. **Study Finds Why Roche's Avastin Only Works in Some Patients** (Oct.23/12)

Genetic testing could help doctors find the small number of patients with advanced colorectal cancer likely to benefit from the cancer drug Avastin. In a study of Roche's blockbuster drug, which targets and blocks a protein called VEGF-A, researchers found that different forms of the protein lead to varying responses and Avastin had no benefit in at least half of those taking it. Avastin, or bevacizumab, has been shown to increase survival from colorectal cancer in around 10 to 15% of patients and was licensed on that basis, but until now it has been impossible to predict who is likely to benefit. "This is the only evidence so far that shows which patients will respond to Avastin - or more importantly those who will not respond to Avastin - in the conditions for which it was originally licensed," claims lead. Researchers have shown which half of patients don't benefit, so that takes half the patients out of the treatment group. But it's also quite possible that it's only a fraction of the other half that do benefit. For this study, researchers looked at two different forms of the VEGF protein - one called *VEGF165* which helps cancers to grow new blood vessels to get food and oxygen from the blood, and another called *VEGF165b* which has the opposite effect and acts as a brake on this growth. Analyzing data from 97 samples from patients in a final stage clinical trial of Avastin, they found that **those with low levels of VEGF165b survived three months longer without their cancer progressing compared with patients not treated with Avastin.** But **patients with higher levels of VEGF165b saw no benefit from Avastin and survived no longer than those not taking it.** A spokesman for Roche, which is the world's largest maker of cancer drugs, said the findings had limitations because they were based on a relatively small number of patients and were retrospective. "Validation (of these findings) requires a prospective study with an adequate (or) much larger sample size," the spokesman said in an emailed statement. Regulators may propose that further clinical trials are needed, or they could say we now need to start screening for VEGF165b to determine whether patients should get (Avastin) treatment.

Bates, David, et al., Association between VEGF Splice Isoforms and Progression-Free Survival in Metastatic Colorectal Cancer Patients Treated with Bevacizumab. Clinical Cancer Research. Published Online First October 25, 2012; doi: 10.1158/1078-0432.CCR-12-2223

3. **Avastin Plus Chemo Before Surgery for Unresectable Metastatic Colorectal Cancer (Nov.15/12)**

This prospective observational study assessed the efficacy of bevacizumab (avastin) in combination with chemotherapy as preoperative treatment to downsize tumours for radical resection in patients with unresectable metastatic colorectal cancer (mCRC). Patients with mCRC initially unresectable according to predefined criteria were included. Preoperative treatment consisted of bevacizumab (5 mg/kg) combined with oxaliplatin- or irinotecan-based chemotherapy, which was followed by surgery in patients showing clinical benefit. Resection rate was the primary endpoint. Response rate (RR) and clinical benefit of preoperative chemotherapy, and overall survival (OS) were secondary endpoints. A total of 120 eligible patients were included and received preoperative treatment. Chemotherapy was irinotecan-based

in 73 (61 %) patients, oxaliplatin-based in 25 (21 %) and 22 (18 %) patients received more than one line. A RR of 30% and a clinical benefit rate of 73% were observed with preoperative chemotherapy. Metastatic resection was possible in 61 (51%) patients. Median OS was 33 months for patients undergoing surgery, and 15 months in non-operated patients. Thirty-five patients experienced 59 postoperative complications (morbidity rate 57 %). The authors concluded that preoperative bevacizumab-based chemotherapy offers a high surgical rescue rate in patients with initially unresectable mCRC.

Figueras, J, et al., Preoperative treatment with bevacizumab in combination with chemotherapy in patients with unresectable metastatic colorectal carcinoma. Clin Transl Oncol. 2012 Nov. 10. Epub Ahead of Print.

SURGICAL THERAPIES

4. Multimodal Treatment of Peritoneal Metastases Offers Hope for Many Patients with Colorectal Cancer (Oct.31/12)

At the 8th World Congress on Peritoneal Surface Malignancies held from October 30 to November 2 in Berlin, Germany, a paradigm shift was emphasized that offers hope to numerous cancer patients worldwide. So far patients with peritoneal metastases of solid tumors in the abdominal region were considered not to be candidates for curative treatment. These patients had an extremely poor prognosis and were treated solely with systemic chemotherapy within the framework of "best supportive care." At the international congress definitive data was presented sharing that multimodal treatment of peritoneal metastases of colorectal cancer can be a promising approach and is associated with a five-year survival of up to 30-50%. Dr. Paul Sugarbaker (Washington, DC, USA), surgeon and congress president, is considered a pioneer of this approach which uses a combination of cytoreductive surgery (CRS), hyperthermic intraperitoneal chemotherapy (HIPEC) and subsequent systemic chemotherapy. With HIPEC the chemotherapeutic agent is distributed in the abdominal region at 42°C for about 60 to 90 minutes. "The residual tumor tissue is exposed to a multiple of the normal concentration of the cytotoxic agent that is administered during conventional chemotherapy," explained Sugarbaker. "This is why the method is successful. In selected patients it can double the survival time - and should therefore be considered as a therapeutic option within an individualized treatment approach". The aspect of individualized treatment is important, because the method is suitable only for patients with isolated and limited peritoneal carcinomatosis without metastases outside the abdomen. "However, this group constitutes up to 15% of all patients with colorectal cancer after all," pointed out Dr. Prof. Pompiliu Piso (Regensburg, Germany), co-president of the congress. "In simple terms this means that in Germany, for example, where there are 70,000 new cases of colon cancer each year, the prognosis of around 10,000 patients could be substantially improved by the use of this method."

http://www.prnewswire.com/news-releases/multimodal-treatment-of-peritoneal-metastases-offers-hope-for-many-patients-with-colorectal-cancer-176785501.html

RADIATION/INTERVENTIONAL RADIOLOGY

5. Radioembolization Using Sirspheres Improves Overall Survival for Patients with Inoperable Colorectal Cancer in the Liver (Oct.21/12)

The results of a matched-pair comparison of patients with metastatic colorectal cancer predominately affecting the liver, for whom all chemotherapy options had been exhausted, showed that the addition of radioembolization using **SIR-Spheres** significantly prolonged survival compared with best supportive care (BSC) alone. The study showed that median overall survival was more than doubled in patients receiving radioembolization plus BSC versus BSC alone: 8.3 months *vs.* 3.5 months. "Radioembolization significantly prolonged overall survival compared with supportive care alone in a well-matched cohort of patients with extensive, liver-dominant chemotherapy refractory disease for whom there are limited treatment options," said Prof. Jens Ricke, Director of Radiology and Nuclear Medicine at the University Hospital of Magdeburg, Germany, and senior author of the study. "The evidence suggests that radioembolization should be considered as a treatment option for patients with liver-only or liver-dominant colorectal metastases who have failed or are intolerant of chemotherapy." The study compared the overall survival of 58 patients with colorectal cancer metastases that were either limited to or predominately affected the liver, who were refractory to all recommended chemotherapy or had refused further chemotherapy, and were unsuitable for other treatment options such as surgical resection, local ablation or other forms of radiotherapy. Twenty-nine patients received radioembolization using SIR-Spheres (^{90}Y-labeled resin microspheres; Sirtex Medical Limited, Sydney, Australia) and were followed prospectively. These patients were matched retrospectively for prior treatments and tumour burden with a contemporary cohort of >500 patients who received BSC from 3 centres in Germany to identify 29 consecutive patients with at least 2 of 4 specific matching criteria (the presence of synchronous or metachronous metastases, tumour burden, increased alkaline phosphatase, and/or carcinoembryonic antigen [CEA] >200 U/mL). The primary endpoint of the study was overall survival. Following

radioembolization, 12 patients (41.4%) had a partial response and a further 5 (17.2%) had stable disease, giving a disease control rate of 58.6%. The progression-free survival was 5.5 months in the radioembolization cohort compared to 2.1 months in those receiving BSC. The adverse events following radioembolization were generally mild-to-moderate in nature, predominately transient, self-limiting and manageable. "The results of this study are consistent with those from similar cohorts of chemotherapy-refractory patients with colorectal liver metastases treated using radioembolization," said Dr Ricarda Seidensticker, consultant interventional radiologist and lead author of the study. "This was the first comparative study of radioembolization to use overall survival as the primary endpoint, in an ethical design that avoided the crossover of patients to active therapy, which usually blunts the ability of trials to show a difference in survival. These results also compare favourably with recent studies using new biological agents to treat metastatic colorectal cancer. In one randomized controlled trial of cetuximab, for example, the median overall survival was 6.1 months versus 4.6 months with best supportive care. In a similar trial with panitumumab, median overall survival was 6.4 months versus similar survival with best supportive care followed by crossover to panitumumab at progression." Large international randomized controlled trials are currently evaluating the effectiveness of radioembolization using SIR-Spheres combined with first-line chemotherapy in the treatment of patients with colorectal cancer liver metastases compared to chemotherapy alone in order to assess whether this treatment should be used as an early intervention

Seidensticker, Ricarda, et al., Matched pair comparison of radioembolization plus best supportive care versus best supportive care alone for chemotherapy refractory liver-dominant colorectal metastases. Cardiovascular and Interventional Radiology 2012; 35(5): pp. 1066-1073

SCREENING

6. Cancer Screening Reminders to be Co-ordinated in Ontario (Oct.24/12)

A new provincial initiative that will integrate screening reminders for breast, cervical and colorectal cancer is being praised by a local cancer care expert as another way to bolster screening with the ultimate goal of reducing cancer deaths. "If you can detect cancer early, you can actually cure it," said Mark Berry, interim vice-president of cancer services at Grand River Hospital. "Screening can actually help save lives." Regular cervical cancer screening with a Pap test, for instance, can find cell changes that can be treated before becoming cancer — making it almost entirely preventable. Yet, Berry said, "our screening rates are not where we want them to be." Two-thirds of Ontario women are screened for breast cancer, the most common cancer in women and second leading cause of cancer deaths. Cervical cancer screening is best at 72% of eligible women. Screening for colorectal cancer, the second leading cause of cancer deaths in Ontario, is about one out of four using the take-home fecal occult blood test. Colorectal cancer is 90% curable if caught early. "We need to get more people screened," Berry said. "And now we have a very co-ordinated screening program." Screening efforts are continually expanding in Ontario, including the announcement of the co-ordinated system, to encourage more people to get the free tests proven to detect cancer at early stages — even before symptoms appear — to boost the chance of survival. Starting early next year, screening reminders and followup letters will be mailed to patients. It builds on the Ontario Cancer Screening Registry introduced last year to send information to Ontario residents about the value of cancer screening. Screening recommendations are updated as evidence emerges. This year, cervical cancer guidelines were changed, calling for a Pap test every three years rather than the previous two. Berry said there are numerous barriers, both for patients and health-care providers, that keep people from routine screening. Some people don't want to be tested to find out if there's something wrong, while others aren't even aware tests are available. People without a family doctor would have trouble getting screened and people want to avoid the inconvenience of medical visits, especially when they're healthy. Figuring out those issues and then addressing them are goals of Cancer Care Ontario, the provincial agency responsible for improving cancer services and advising the government. "We've got to focus on reducing the barriers," said Berry, who is also regional vice-president for Cancer Care Ontario. "Early detection really does work." Here are the screening recommendations:

Breast cancer: Women between 50 and 74 are encouraged to get a mammogram every two years. Those at higher risk who have a family history of breast cancer can start screening earlier at 30 with a mammogram, genetic testing and breast MRI — a new program added last year. Women can simply call an Ontario Breast Screening Program centre, located at all Waterloo Region's hospitals, to book an appointment.

Cervical cancer: Women age 21 to 70 should be screened with a Pap test every three years, a new guideline introduced this year from the previous recommendation of every two.

Colorectal cancer: Men and women age 50 to 74 with no family history of colorectal cancer should be screened every two years with a take-home fecal occult blood test available from family doctors, nurse practitioners and many pharmacies in the region. Those with a family history should get screened at 50 or 10 years earlier than the age of the diagnosed family member with a colonoscopy.

http://www.therecord.com/news/local/article/822794--cancer-screening-reminders-to-be-co-ordinated-in-ontario

7. Company Develops Simple Blood Test for Colorectal Cancer (Oct. 31/12)

A Mississauga health care company has developed a simple blood screening process that could take all the muss and fuss out of testing patients for colorectal cancer. Officials from CML HealthCare say the new **Cologic** blood test better allows for early detection, which is critical in treating colorectal cancer. The disease claimed more than 9,000 lives in Canada last year. There are few early warning signs of colon cancer. "Colorectal cancer is a completely preventable disease if we screen for it," says gastroenterologist Dr. Mario Castelli. "And it gets more common as we get older, so that's why the recommendation is, usually starting at the age of 50, that everyone should be screened." There are a number of tests already for colon cancer but they are often complicated and unwieldy. "Often, fasting and other dietary restrictions are required," CML says in a press release, "and patients must collect multiple fecal samples over the course of three days or more. Cologic does not require any advance preparation, only the collection of a small blood sample." "This is a much simpler test," Dr. Castelli says. "You just go to the laboratory without any preparation, have a blood sample drawn and the results go to your physician within days." The Cologic test will cost **$75**. Many insurance plans reimburse patients for laboratory tests that are requisitioned by a doctor. CML Medical Director Dr. Philip Stuart says: "Now, with several ways to screen for colorectal cancer risk, this very simple colorectal cancer screening test eliminates any excuse for delaying screening."

http://www.mississauga.com/news/article/1527436--company-develops-simple-blood-test-for-colorectal-cancer

8. British Columbia Announces Colorectal Cancer Screening Program (Nov.5/12)

A province-wide screening program aimed at detecting colorectal cancers earlier and boosting the number of 50-to-74-year-olds being tested will begin next spring in British Columbia. It's expected the program, which includes reminder letters and awareness campaigns, will increase the number of those over age 50 getting tested to at least 70%. At present, only about one-third of B.C. residents in the 50-to-74 age range are tested. The B.C. government has been under pressure for several years from the BC Cancer Agency, patient advocacy organizations and the NDP to implement a publicly funded program like those in other provinces. A three-year pilot project called Colon Check showed the value of an organized screening program like those for breast and cervical cancers. Forty-five cancers and hundreds of pre-cancerous polyps were found in the 15,000 people screened. A University of B.C. study in the Canadian Medical Association Journal in 2010 also showed that a screening program would drastically lower incidence and death rates. That study found that for every 100,000 individuals over the age of 50 who are screened, the costs of finding, diagnosing and treating any problems revealed by the tests amount to about $70 million. There are 1.345 million people in B.C. between the ages of 50 and 74. Health Minister Margaret MacDiarmid, who announced the program at a press conference, said the government doesn't know what the program will cost because it's not known how many people will take advantage of the free testing for signs of blood in the stool. "Hopefully, it will cost a lot," she said, indicating she hopes more people will get screened. MacDiarmid, a former family doctor herself, said she's an "unwilling cancer customer," having survived breast cancer. But as such, she knows the benefits of screening to detect cancer earlier when it's easier to treat. The government's Medical Services Plan branch already spends more than $30 million a year on colorectal cancer diagnostic exams, including fecal sample tests, colonoscopies, sigmoidoscopies and barium studies. That is likely to jump substantially in an organized program because family doctors will also be recommending testing to patients with no symptoms or risk factors. Besides the $30 cost of the stool test, there will also be BC Cancer Agency costs for managing and coordinating the program, plus treatment of what's anticipated to be more cases of cancer being picked up. The cost of treating colorectal cancer — which includes pathology and other lab tests, surgery, doctor visits, chemotherapy and radiation — ranges from about $5,000 to $500,000 per patient each year. The government plans to place a request for proposals for the home-based, fecal immunochemical test (FIT) that detects bloodshed by pre-cancerous polyps or malignant tumours, MacDiarmid said. Its accuracy in detecting cancerous growths and other bleeding polyps is said to be in the range of about 80%. The screening program will launch April 1, 2013 on Vancouver Island. Other health regions will roll out programs after that. Doug Shirlaw, a former Vancouver police department sergeant and Cancer Coach with the Colorectal Cancer Association of Canada, who was diagnosed with colon cancer soon after he retired at age 51, said he's pleased the government is finally acting because it should help detect cases earlier. Shirlaw had symptoms, which included lower back and abdominal pain, but he wasn't diagnosed until a tumour had grown to a large size and spread to lymph nodes. Cancer-free since 2007, he now serves as a colorectal cancer awareness advocate and as a volunteer driver for the Canadian Cancer Society, shuttling patients to appointments. In 2012, about 2,900 B.C residents are expected to get a colorectal cancer diagnosis and 1,150 will die from it, making it the third most common cancer in men and women and the second leading cause of cancer death in men (third in women). The importance of detecting colon cancer in the early stages was demonstrated earlier this year in a study led by Dr. Hamish Hwang, published in the B.C. Medical Journal. Nearly half of patients with colorectal tumours had their cancers diagnosed when they showed up in the emergency department with severe complications such as hemorrhage, bowel obstruction or perforation, according to the one-year study on patients in Vernon. Late diagnoses mean higher disease and treatment complications, hospital stays, health system costs, admissions to long-term care and deaths

http://www.vancouversun.com/health/announces+provincewide+colorectal+cancer+screening+program/7500750/story.html

PSYCHOSOCIAL

9. End of Life Talk Better If Sooner in Advanced Cancer (Nov.14/12)

Tackling end-of-life conversations early may cut down on unnecessarily aggressive care and improve use of hospice in patients with advanced cancer, researchers found. When those discussions occurred before the last 30 days of life, late-stage cancer patients were at least 48% less likely to spend their last 14 days on chemotherapy or visit the ICU or hospital in their last 30. They also had a higher likelihood of hospice and earlier initiation of a hospice stay with early end-of-life conversations. Aggressive care is not necessarily wrong for individuals at end of life," note the researchers. "It may fit with the preferences of select patients who want to pursue life prolongation at any cost. But most patients who recognize that they are dying do not want such care." Guidelines recommend end-of-life discussions start soon after diagnosis with incurable cancer, before acute deterioration and with physicians who know the patient well. "When discussions begin in the last 30 days of life, the end-of-life period is typically already under way," researchers pointed out. "Importantly, clinicians may not know when the last month of life is about to begin. "However, physicians seem to wait until the patient begins deteriorating medically, a strategy that leads to a high incidence of inpatient discussions," they wrote. "Instead, physicians should consider moving conversations closer to diagnosis and initiating conversations while the patient is doing comparatively well, so the patient has time to plan for more difficult times in the future." Researchers examined the prospective population- and health system-based Cancer Care Outcomes Research and Surveillance Consortium (CanCORS) cohort for end-of-life care received by 1,231 patients with stage IV lung or colorectal cancer who died over a 15-month period. The 88% of patients who had some kind of end-of-life discussion typically had it during a hospitalization (63%) and with someone other than an oncologist (60%). Nearly 40% of these discussions about resuscitation preferences and hospice care happened in the last 30 days of life. Almost half of patients received some type of aggressive care in their last 30 days of life, including:

- Chemotherapy in the last 14 days of life (16%)
- ICU care in the last 30 days of life (6%)
- Acute hospital-based care in the last 30 days of life (40%)

Any aggressive care was 48% less likely when end-of-life discussions took place 31 to 60 days before death, 62% less likely when done 61 to 90 days beforehand, and 54% less likely when more than 90 days prior to death. For the specific aspects of aggressive care, there was likewise an advantage to earlier end-of-life conversations in the multivariate analysis:

- 26% to 62% lower likelihood of chemotherapy in the last 14 days of life
- 35% to 58% lower likelihood of hospitalization in the final 30 days of life
- 35% to 63% lower likelihood of an ICU stay in the last 30 days of life, albeit statistically significant only for discussions more than 90 days out

Most patients (58%) entered hospice at some point, although initiated only in the last 7 days of life for 15%. Early end-of-life discussions boosted the rate of hospice care by 90% to 2.94-fold, and cut the likelihood of late initiation by 50% to 77%. Discussions initiated during an inpatient hospitalization similarly were associated with more aggressive end-of-life care. The researchers cautioned that their study couldn't address causation or whether care received reflected patient preferences. Another limitation was lack of agreement in some cases between medical records and interviews with patients and their surrogates on whether end-of-life discussions occurred. Generalizability to patients who survive longer than 15 months after diagnosis might be an issue as well because patterns of care may be different for them.

Mack, JW, et al., Associations between end of life discussion characteristics and care received near death: a prospective cohort study. J Clin Oncol. 2012; 30; DOI: 10.1200/JCO2012.43.6055

OTHER

10. Circulating Tumor Cells & CEA Levels Help Predict Survival in Metastatic Colorectal Cancer
(Oct.18/12)

Circulating tumor cells (rare cells from a cancerous tumor that appear in the bloodstream) can help predict how a person with metastatic colorectal cancer (mCRC) might do over time. This study compared levels of circulating tumor cells (CTCs) with levels of CEA (carcinoembryonic antigen) to see how the two tests compared or could be used together to predict survival times in metastatic CRC. Results in 217 patients with metastatic CRC showed that at the beginning of treatment, CTC numbers alone – not CEA levels – could accurately predict length of survival. But when patients had a high initial level of CEA, adding the CTC number helped predict which patients would survive longer. At the 6-12 week mark, each test alone could accurately predict prognosis. The study's second author noted that, in clinical practice, he tends to rely more on CT scans and MRIs for metastatic CRC treatment decisions, but that CTCs seem to be a good indicator for overall prognosis. For several decades, the level of carcinoembryonic antigen (CEA) in tumor tissue has been used to predict prognosis (length of survival) in

early-stage colorectal cancer. Also, changes in CEA levels are often used to watch for cancer recurrence. However, there's less evidence about how well CEA levels predict prognosis in metastatic CRC. In an earlier study, this study's authors showed that circulating tumor cells (CTCs) are another marker that accurately predicts progression-free and overall survival in mCRC patients who are just starting therapy. In this second analysis, the researchers compared how well tests of CTCs and CEA levels—both separately and when used together—could predict survival in 217 mCRC patients at 55 centers in three nations. The tests were performed at the beginning of treatment, at 3-5 weeks and at 6-12 week time points. At baseline (beginning of treatment), the CTC level alone accurately correlated with the person's length of survival. Using both baseline tests together provided more information: A patient with a higher CEA level (≥ 25ng/ml) but low CTCs (≤3) had longer survival that those with more CTCs (20.8 versus 11.7 months). Both CTC and CEA levels could independently predict survival at 6-12 weeks after treatment had begun. Second author Dr. Neal Meropol noted that "I tend to rely more on CT scans and MRIs than CEA levels to make treatment decisions in patients with advanced colon cancer. One exception is the case of metastases that are difficult to measure accurately or to see at all on a scan: In those instances, the CEA test can help guide a decision. With regard to CTCs, these seem to be a good indicator of prognosis, but in my view there still isn't enough evidence to use them to make decisions about changing therapy."

Aggarwal, C, et al., Relationship among circulating tumor cells, CEA and overall survival in patients with metastatic colorectal cancer. Annals of Oncology. First published online: October 1, 2012

http://fightcolorectalcancer.org/research_news/2012/10/circulating_tumor_cells_and_cea_levels_help_predict_survival_in_metastatic_crc

11. Allergies and Fatal Colon Cancer (Oct.18/12)

A new study suggests that people who suffer from both hay fever and asthma may be less likely to die from colon cancer. The research found that people with both hay fever and asthma were 17% less likely to die from colon cancer compared with people who have neither condition. But individuals with hay fever *or* asthma had little reduction in their risk of fatal colon cancer, according to the report. People with hay fever and asthma are primed to develop allergic responses, which is why they have hay fever and asthma in the first place. The new theory is that they also mount an allergic response to colon cancer cells. Further research is needed in this area, and if it supports the idea that a naturally occurring immune response can attack some colorectal cancers, vaccines could be developed to treat these cancers. To arrive at their findings, the researchers analyzed data from two studies comprising about one million people each. None of the participants in either study had cancer when the studies began, but 19,000 died from colon cancer during the course of the studies. The hope is to build on this research and eventually develop a vaccine to treat colon cancer. It's possible that hay fever and asthma are markers of robust immune response. Eating a healthy diet and exercising regularly might also help people to prime their immune response and fight cancer. Nearly 8% of U.S. adults have hay fever, according to the American Academy of Allergy, Asthma & Immunology. People with seasonal hay fever are allergic to pollen and spores. Some suffer from hay fever-like symptoms year-round, usually because of an allergy to dust mites, pets, certain chemicals or some foods. These same allergens can lead to asthma symptoms -- wheezing and cough -- caused by inflammation of the airways. The data and conclusions of research presented at medical meetings should be considered preliminary until published in a peer-reviewed medical journal. And, while the study found an association between having hay fever plus asthma and a reduced risk of fatal colon cancer, it did not prove cause-and-effect.

Jacobs, Eric, strategic director, pharmacoepidemiology, American Cancer Society, Atlanta; Andrew Chan, M.D., M.P.H., program director, Gastroenterology Training, Massachusetts General Hospital, Boston; presentation, American Association for Cancer Research, Anaheim, Calif., Oct. 18, 2012.

http://www.hon.ch/News/HSN/669809.html

12. Risk of Colorectal Adenomas in Women with Prior Breast Cancer (Oct. 18/12)

Longer life expectancy in patients with prior breast cancer may increase their risk of developing other primary cancers, including colorectal cancer (CRC). Whether the risk of developing CRC in this patient population is higher in comparison to those with no prior cancer remains unclear. The purpose of this study was to compare the prevalence of colorectal adenomas and any CRC in breast cancer survivors with those who have no history of prior cancer and assess any difference with use of anti-estrogen therapy. Researchers compared the prevalence of colorectal cancer and adenomas in breast cancer survivors with that of a group of matched controls. Eligible survivors were

- ≤85 years of age;
- had initially been diagnosed with stage 0, I, II, or III breast cancer;
- had completed all cancer treatments with the exception of adjuvant anti-estrogen therapy; and
- had no evidence of recurrence on follow-up.

Researchers used the screening colonoscopy database at their institution to identify age-, sex-, and race-matched controls with no history of cancer. They identified 302 study-eligible breast cancer survivors and 302 matched controls. No colorectal cancers were found in either group. Forty-one breast cancer survivors and 30 controls had tubular adenomas; four survivors and three controls had villous adenoma; and eight survivors and ten controls had advanced adenoma. Analysis revealed that adjuvant anti-estrogen therapy was not significantly associated with an

increased risk of advanced adenoma. The prevalence of colorectal adenomas in breast cancer survivors and controls was similar. Breast cancer survivors, including those receiving adjuvant anti-estrogen therapies may follow the colorectal screening guidelines used for average-risk population.

Shukla, A, et al., Risk of colorectal adenomas in women with prior breast cancer. Dig Dis Sci. 2012 Oct. 12. Epub ahead of print.

13. Addressing Sexual Issues for Cancer Survivors (Oct.24/12)

With 12 million people in the U.S. living with and beyond cancer, health and psychosocial issues facing survivors are finally becoming active topics of research and discussion. The Oct. 20th *Journal of Clinical Oncology* has a special "survivorship" issue featuring an array of special articles primarily focusing on the health issues such as bone health, symptoms like chemo-brain, lifestyle factors such as physical activity to help prevent recurrence. Articles also focus on fertility preservation and sexuality issues in cancer survivors. "It has become clear that sexual function is often profoundly disrupted by cancer treatment," wrote the authors of a review article "Sexuality in Adult Cancer Survivors." The special 'survivorship" issue of the *Journal of Clinical Oncology* summarizes progress and research in the past 7 years, since the Institute of Medicine and the *JCO* first published special reports about what was then an emerging field of survivorship study. In this issue, authors Sharon Bober and Veronica Varela discuss sexuality issues among all cancer survivors. For those with colorectal cancer, they noted, pelvic surgery and/or radiation can damage nerves and cause erectile and ejaculatory problems for men, and for women, low desire, lubrication problems, pain with vaginal changes. Fight Colorectal Cancer recently presented nationally-renowned radiation oncology researcher Dr. Joel Tepper of the University of North Carolina School of Medicine in an hour-long webinar focusing on sex after rectal cancer treatment. He noted that women can be particularly affected because the rectum shares a very thin wall with the vagina, but that for both sexes, "not much research or good information is available." However, Dr. Tepper's clear, methodical presentation of issues faced by colorectal cancer patients–including illustrations of how recently improved surgical techniques can spare pelvic nerves—goes a long way in helping colorectal cancer patients understand sexuality issues and treatments they might consider.

Bober, Sharon, et al., Sexuality in adult cancer survivors: challenges and intervention. J of Clin Onc. Published online before print September 24, 2012. Vol. 30, No. 30: pp. 3712-3719

http://fightcolorectalcancer.org/research_news/2012/10/sexual_issues_for_cancer_survivors

14. Chemotherapy Value Overestimated by Many Cancer Patients (Oct.26/12)

Most patients getting chemotherapy for incurable lung or colon cancers mistakenly believe that the treatment can cure them rather than just buy them some more time or ease their symptoms, a major study suggests. Researchers say doctors either are not being honest enough with patients or people are in denial that they have a terminal disease. The study highlights the problem of overtreatment at the end of life - futile care that simply prolongs dying. It's one reason that one quarter of all Medicare spending occurs in the last year of life. For cancers that have spread beyond the lung or colon, chemo can add weeks or months and may ease a patient's symptoms, but usually is not a cure. This doesn't mean that patients shouldn't have it, only that they should understand what it can and cannot do, cancer experts say. Often, they do not. Dr. Jane C. Weeks at Dana-Farber Cancer Institute and researchers at several other Boston-area universities and hospitals led a study of nearly 1,200 such patients around the country. All had been diagnosed four months earlier with widely spread cancers and had received chemo. Surveys revealed that 69% of those with lung cancer and 81% of those with colorectal cancer felt their treatment was likely to cure them. Education level and the patient's role in care decisions made no difference in the likelihood of mistaken beliefs about chemo's potential. Hispanics and blacks were three times more likely than whites to hold inaccurate beliefs. Federal grants paid for most of the research. In an editorial that appears with the study, two doctors question whether patients are being told clearly when their disease is incurable. Patients also may have a different understanding of "cure" than completely ridding them of a disease - they may think it's an end to pain or less disability, note Dr. Thomas J. Smith of Johns Hopkins University School of Medicine and Dr. Dan L. Longo, a deputy editor at the medical journal. "If patients actually have unrealistic expectations of a cure from a therapy that is administered with palliative intent, we have a serious problem of miscommunication," they write. "We have the tools to help patients make these difficult decisions. We just need the gumption and incentives to use them."

Weeks, Jane et al., Patients' expectations about effects of chemotherapy for advanced cancer. New Engl J of Med. 2012; 367: pp. 1616-1625

15. Spread of Rectal Cancer to Lymph Nodes More Likely At Younger Age (Oct.29/12)

Rectal cancer is more likely to spread to the lymph nodes in younger patients, according to new findings. The results—which are the first of their kind—suggest that doctors should search for spreading more aggressively in these patients. Once rectal cancer has spread to the lymph nodes, it is more likely to return to the pelvis following surgery. Administering chemotherapy and radiation before surgery reduces that risk, so before the procedure, doctors typically perform a scan—ultrasound, PET, or MRI—to search for signs of cancer in the lymph nodes. These findings suggest that doctors should hunt for affected lymph nodes more aggressively in younger patients, by perhaps performing multiple scans. When doctors have younger patients, they might think twice before being confident rectal cancer has not spread

to the lymph nodes. It makes a lot of sense to be more aggressive in checking for lymph node involvement in people younger than 50. This is the first study to show that age is associated with the risk that rectal cancer will spread to the lymph nodes. The idea for the project came out of an observation wherein a couple of young patients with an early stage of rectal cancer that had unexpectedly spread to the lymph nodes. "Because of that, I wondered if the risk of spread is somehow connected to their age", claimed lead investigator. The researchers had access to a massive database of information about cancer patients run by the National Cancer Institute. They reviewed the case history of more than 56,000 patients diagnosed with rectal cancer between 1988 and 2008. Approximately 2% of patients were ages 20-39; 7.5% were in their 40s. Overall, the younger patients were, the more likely it was that their cancer had spread to their lymph nodes—regardless of the stage of their tumors. For instance, among those whose tumors were the least invasive into the rectal wall (stage T1), 22.3% of 20-39 year-olds had affected lymph nodes, versus only 10.8% of patients ages 60-69. The same differences appeared in people whose tumors were more invasive—in T3 tumors, the most common presentation, 60.7% of younger patients had tumors that had reached the lymph nodes, versus 49.4% of those in their 60s. It's not clear why age might influence the spread of rectal cancer. Perhaps the tumors of younger patients are simply biologically different from those of older patients, rendering them more likely to spread. Even though the researchers reviewed data collected from tens of thousands of patients, these initial findings should be followed up by more research. "Since this is a first study, I don't think you can definitively say that age is directly related to risk of lymph node involvement in rectal cancer", notes lead investigator. "But it is something one should keep in mind." Consequently, when young people are diagnosed with rectal cancer, it makes sense to ask their doctors to thoroughly check their lymph nodes for signs of spread before skipping chemotherapy and radiation prior to surgery.

http://www.fccc.edu/information/news/press-releases/2012/2012-10-28-ASTRO-age-and-rectal-cancer.html

16. Should All Colorectal Tumours Be Tested for Lynch Syndrome (Oct.12/12)

An international study found that universal tumor testing in all newly diagnosed colorectal cancer patients produced a "modest increase" in finding people with Lynch syndrome. One in every 35 people with colorectal cancer has Lynch syndrome–an inherited genetic mutation which greatly increases the person's chance of developing colorectal cancer more than once, plus other cancers (stomach, pancreas, urinary system, brain or skin cancers). Women with Lynch syndrome also face a 40-60% chance of developing endometrial (uterine) cancer in their lifetime and an increased risk for ovarian cancer. Until genetic tests of tumors became available in recent years, Lynch syndrome could only be diagnosed based on a family history of cancers. But even with genetic testing, Lynch syndrome is still significantly under-diagnosed. The study by Stanford University researchers analyzed data gathered from 10,200 newly diagnosed CRC patients to see which type of screening most effectively detected Lynch syndrome. Testing tumors for the MMR (mismatch-repair) genetic mutation detected 100% of the Lynch cases. In the U.S. population as a whole, an estimated 1 in 400 persons has Lynch syndrome. Lynch syndrome is often suspected when someone is diagnosed with colorectal cancer under age 50. But the international study found that only 45% of those with Lynch syndrome were diagnosed at age 50 or younger. The other clue to Lynch syndrome is a family history with several members of the same generation (especially if diagnosed young) having colon—or uterine—cancer. But today's smaller families can confuse the family history, unless it is probed further into grandparents, aunts, uncles, and cousins. "Only 43% of patients with Lynch syndrome had… a family history [in the first generation], noted the JAMA editorial accompanying the study. "The study results should remind clinicians that simply asking about a family history of CRC in a first-degree relative will miss the majority of patients with Lynch Syndrome," noted Dr. Uri Ladabaum. The CDC task force first recommended universal testing of tumors in 2009; by 2011 only 42% of hospitals were routinely testing all tumors. But there are more institutions calling every week to ask about setting up universal tumor screening systems.

Ladabaum, Uri, et al., Lynch syndrome in patients with colorectal cancer finding the needle in the haystack. JAMA. 2012; 308(15): pp. 1581-1583.

NUTRITION & HEALTHY LIFESTYLE

17. Coffee Improves Bowel Function After Colon Surgery (Oct.18/12)

Patients who drank coffee, rather than water, after bowel surgery to remove a part of their colon experienced a quicker return to bowel movements and tolerance of solid food. Those are two of the key findings of a comparative study of 80 patients. "Post-operative bowel obstruction is a common problem after abdominal surgery and the aim of this study was to test our theory that coffee would help to alleviate this" says lead author Dr Sascha Müller. The 80 patients were randomized into coffee and water groups before their operation, with one patient in the water arm subsequently excluded due to a change in their surgical procedure. Patient characteristics were similar in both groups. Their average age was 61 years and 56% were male. Just over half (56%) had colonic cancer, 28% had diverticular disease (a structural problem with the wall of their colon), 13% had inflammatory bowel disease and 4% had other conditions.

The majority had open surgery (61%) and the remainder had laparoscopic surgery. The patients were given 100mls of coffee or water three times a day. Key findings were:

- Time to first bowel movement after surgery was just over 60 hours in the coffee group and 74 hours in the water group.
- The coffee group was able to tolerate solid food in just over 49 hours, compared to just under 56 hours in the water group.
- The coffee drinkers were also able to pass wind just under 41 hours after surgery, compared with over 46 hours for the water group.
- Length of hospital stay and ill health were similar in both groups.

"This randomized trial showed that the time to first bowel movement after surgery was much shorter in the coffee drinkers than the water drinkers" says Dr Müller. "Although 10% of the patients did not want to drink strong coffee at this time, it was well accepted by the group and no coffee-related complications were noted. It is not clear how coffee stimulates the intestine and caffeine appears to have been ruled out by previous studies, which found that decaffeinated coffee, which was not used in this study, also has beneficial effects. Whatever the mechanism, it is clear that postoperative coffee consumption is a cheap and safe way to activate bowel motility after elective colonic surgery."

Müller, S.A., et al.**,**Randomized clinical trial on the effect of coffee on postoperative ileus following elective colectomy. **British Journal of Surgery***, 2012; 99 (11): 1530* *DOI: 10.1002/bjs.8885*

18. Chronic Constipation Associated with Colorectal Cancer (Oct.23/12)

Patients with chronic constipation may be at increased risk of developing colorectal cancer and benign neoplasms (growths), according to these study findings. The study investigated the prevalence and incidence of colorectal cancer and benign neoplasms in 28,854 patients with chronic constipation (CC) and 86,562 controls without CC that were identified from a large retrospective U.S. claims database (January 1999-September 2011). Patients with at least two diagnoses of constipation were required to be 18 years or older and continuously enrolled in their health plan for at least one year following the study index date, which was the patient's first eligible diagnosis of constipation. Patients with diagnoses of irritable bowel syndrome or diarrhea were excluded. Researchers found that:

- Both colorectal cancer (CRC) and benign neoplasms are more prevalent in chronic constipation patients compared to a control population free from chronic constipation.
- Among the patients that were not previously diagnosed with CRC or benign neoplasms prior to their index date, and after controlling for potential confounding factors including age, gender, family history of malignancies, and other non-gastrointestinal comorbidities, patients with CC were more at risk to develop CRC or benign neoplasms.
- The risk of developing CRC was 1.78 times higher for chronic constipation (CC) patients and the risk of developing benign neoplasms was 2.70 times higher. After adjusting for potential confounding factors, which are potentially also associated with the CC conditions, the incremental risk of developing CRC and benign neoplasms remained "**consistently high**."

"This study demonstrates an association, not causation, between chronic constipation and both colorectal cancer and benign neoplasms" said co-investigator Nicholas Talley, M.D., Ph.D., of the University of Newcastle. "The postulated causal link between constipation and increased colorectal cancer risk is that longer transit times increase the duration of contact between the colonic mucosa and concentrated carcinogens in the lumen, such as bile acids or other carcinogens." "The association between constipation and colorectal cancer deserves further exploration to better understand possible causal elements," said Dr. Talley. "Moreover, a review of the existing literature suggests prospective cohort studies have not identified this association. Thus, the findings may reflect recall bias." "In this study, patients with chronic constipation were found to be at increased risk of developing colorectal cancer and benign neoplasms, said Dr. Talley. "Although chronic constipation is considered a relatively benign disease, practitioners should be aware of this potential association to monitor and treat accordingly," said Dr. Talley. "We encourage anyone with questions related to their condition to talk to their health care professional so that the specific health needs of each patient can be balanced with the risks and benefits of medications." He also noted that further research is warranted to evaluate whether patients who have their constipation well controlled are at lower risk of developing CRC and benign neoplasms. “Longitudinal prospective studies to understand the causal relationship between chronic constipation and CRC would advance our understanding of prevention and management of these disorders."

About Chronic Constipation
Constipation, one of the most common gastrointestinal complaints in the United States, occurs when the colon absorbs too much water or if the colon's muscle contractions are slow or sluggish, causing the stool to move through the colon too slowly. As a result, stools can become hard and dry. More than 4 million Americans have frequent constipation, accounting for 2.5 million physician visits a year, according to the National Digestive Diseases Information Clearinghouse (NDDIC). Chronic constipation is a condition of infrequent bowel movements -- typically fewer than three bowel movements a week -- and difficult passage of stools which does not go away. In some cases, CC may be caused by an underlying medical condition.

American College of Gastroenterology (ACG) (2012, October 22). Chronic constipation linked to increased risk of colorectal cancer.

19. Vitamin D May Prevent Colorectal Cancer (Oct. 25/12)

Researchers in Europe have found that people with abundant levels of vitamin D -- the so-called sunshine vitamin -- have a much lower risk of colon cancer. The findings add to a growing body of evidence that suggest vitamin D may have the power to help prevent colon cancer and possibly even improve survival in those who have the disease. The body makes vitamin D after the skin absorbs some of the sun's rays. You can also get vitamin D by consuming certain foods and beverages, such as milk and cereal, which have been fortified with the vitamin, but few foods naturally contain it. For the current study, researchers looked at the link between blood levels of vitamin D as well as dietary vitamin D and calcium, and who was at risk for colorectal cancer. They based their findings on information from the European Prospective Investigation into Cancer Study (EPIC), a study of more than 520,000 people from 10 Western European countries. The study participants gave blood samples and completed detailed diet and lifestyle questionnaires between 1992 and 1998. During the follow-up period, 1,248 patients were diagnosed with colorectal cancer. Researchers compared their lifestyle and diet backgrounds to the same number of healthy patients. They discovered that those with the highest blood levels of vitamin D had a nearly 40% decrease in colorectal cancer risk than those with the lowest levels. However, the best way to boost your vitamin D level may be a matter of debate. As vitamin D's potential health benefits become more widely advertised, more people may advocate supplementation. However, the researchers say it's unclear if supplements are better at increasing blood levels of vitamin D than a balanced diet and moderate exposure to outdoor sunlight. They caution that the long-term effects of taking large doses of vitamin D supplements have not been well studied. "Our findings suggest that the potential cancer risk benefits of higher vitamin D levels should be balanced with caution for the toxic potential," they write in today's online version of *BMJ*. "Before any public health recommendations can be made for vitamin D supplementation, new randomized trials are needed to test the hypothesis that increases in [blood levels of vitamin D] are effective in reducing colorectal cancer risk without inducing serious adverse events."

http://www.hopkinscoloncancercenter.org/CMS/CMS_Page.aspx?CurrentUDV=59&CMS_Page_ID=AB041E4B-5568-46B9-8D12-BA3959A6F3F5

20. Green Tea Drinkers Show Lower Cancer Risk (Oct. 26/12)

Older women who regularly drink green tea may have slightly lower risks of colon, stomach and throat cancers than women who make no time for tea, a large study suggests. Researchers found that of more than 69,000 Chinese women followed for a decade, those who drank green tea at least three times a week were 14% less likely to develop a cancer of the digestive system. That mainly meant lower odds of colon, stomach and esophageal cancers. No one can say whether green tea, itself, is the reason. Green-tea lovers are often more health-conscious in general. The study did try to account for that, said senior researcher Dr. Wei Zheng. None of the women smoked or drank alcohol regularly. And the researchers collected information on their diets, exercise habits, weight and medical history. Even with those things factored in, women's tea habits remained linked to their cancer risks, Zheng noted. Still, this type of study cannot prove cause-and-effect. What's more, past studies have so far come to conflicting findings on whether green-tea drinkers really do have lower cancer risks. All of those studies are hampered by the fact that it's hard to isolate the effect of a single food in a person's diet on the risk of cancer. Really, the only types of studies that can give strong evidence of cause-and-effect are clinical trials, wherein people would be randomly assigned to use green tea in some form, or not. But few clinical trials have looked at whether green tea can cut cancer risk, and their results have been inconsistent, according to the National Cancer Institute. There is "strong evidence" from lab research - in animals and in human cells - that green tea has the potential to fight cancer, Zheng's team writes. Green tea contains certain antioxidant chemicals - particularly a compound known as EGCG - that may ward off the body-cell damage that can lead to cancer and other diseases. For their study, Zheng and his colleagues used data from a long-running health study of over 69,000 middle-aged and older Chinese women. More than 19,000 were considered regular green-tea drinkers. (They had the beverage at least three times per week.) Over 11 years, 1,255 women developed a cancer of the digestive system. In general, the risks were somewhat lower when a woman drank green tea often and for a long time. For example, women who said they'd regularly had green tea for at least 20 years were 27% less likely than non-drinkers to develop any digestive system cancer. And they were 29% less likely to develop colorectal cancer, specifically. None of that proves you should start drinking green tea to thwart cancer. Women who downed a lot of green tea in this study were also younger, ate more fruits and vegetables, exercised more and had higher-income jobs. The researchers adjusted their data for all those differences - but, they write, it's not possible to perfectly account for everything. If you want to start drinking green tea, it's considered safe in moderate amounts, says the National Center for Complementary and Alternative Medicine. But the tea and its extracts do contain caffeine, which some people may need to avoid. Green tea also contains small amounts of vitamin K, which means it could interfere with drugs that prevent blood clotting, like warfarin. Since many older people are on multiple medications, it's wise for them to talk with their doctors before using green tea as a health tonic.

Zheng, Wei, et al., Prospective cohort study of tea consumption and risk of digestive system cancers: results from the Shanghai women's health study. Am J Clin Nutri; November 2012. Vol. 96, No. 5: pp. 1056-1063

21. High Carbohydrate Diet Linked to Increased Risk of Colon Cancer Recurrence (Nov.6/12)

Colon cancer survivors whose diet is heavy in complex sugars and carbohydrate-rich foods are far more likely to have a recurrence of the disease than are patients who eat a better balance of foods, according to this new study. The connection is especially strong in patients who are overweight or obese, the authors write. More than 1,000 patients with advanced (stage III) colon cancer participated in the study, one of the first to examine how diet can affect the chances that the disease will recur. Although the results point to a potential hazard, for colon cancer patients, of a high-carbohydrate diet, the take-home message is not a conclusive "Eat less sugar," says lead author Jeffrey Meyerhardt, MD, MPH. "Our study certainly supports the idea that diet can impact the progression of colon cancer, and that patients and their doctors should consider this when making post-treatment plans. But further research is needed to confirm our findings." Recent studies have shown that colorectal cancer survivors whose diet and activity patterns lead to excess amounts of insulin in the blood have a higher risk of cancer recurrence and death from the disease. High insulin levels can be produced by eating too many starchy and sugar-laden foods. In a previous study of advanced-stage colon cancer patients, Meyerhardt and his colleagues found that those with a typical "Western" diet -- marked by high intakes of meat, fat, refined grains, and sugar desserts -- were three times more likely to have a cancer recurrence than those whose diets were least Western. The new study was conducted to explore which component of the Western diet is most responsible for the increased risk of recurrence. The study involved 1,011 stage III colon cancer patients who had undergone surgery and participated in a National Cancer Institute-sponsored Cancer and Leukemia Group B clinical trial of follow-up chemotherapy for their disease. Participants reported their dietary intake during and six months after the trial. Researchers tracked the patients' total carbohydrates, as well as their glycemic index (a measure of how quickly blood sugar levels rise after eating a particular food), and glycemic load (which takes into account the amount of a carbohydrate actually consumed), and looked for a statistical connection between these measures and the recurrence of colon cancer. They found that participants with the highest dietary levels of glycemic load and carbohydrate intake had an 80% increased risk of colon cancer recurrence or death compared with those who had the lowest levels. Among patients who were overweight or obese (had a body mass index above 25 kg/m2), the increase was even greater. "In light of our and other's research, we theorize that factors including a high glycemic load may stimulate the body's production of insulin," Meyerhardt said. "That, in turn, may increase the proliferation of cells and prevent the natural cell-death process in cancer cells that have metastasized from their original site." Meyerhardt added that while the study doesn't prove that diets high in glycemic load and carbohydrate intake cause recurrence of colon cancer, the results strongly suggest that such dietary factors play a role. "Our findings may offer useful guidance for patients and physicians in ways of improving patient survival after treatment."

Meyerhardt, Jeffrey A., et la., ***Dietary Glycemic Load and Cancer Recurrence and Survival in Patients with Stage III Colon Cancer: Findings From CALGB 89803***. **J Natl Cancer Inst*, November 7, 2012 DOI: 10.1093/jnci/djs399***

22. Smokers Fare Worse After Colon Surgery (Nov. 6/12)

Smoking has long been linked with slower recovery in general from injuries and surgeries, and now a new study finds that smokers face more complications and higher chances of death following major surgery for colorectal cancers and other diseases. "We wanted to see if smoking has a specific effect on these patients... and really wanted to know if patients who stopped smoking had better results," said lead author Dr. Abhiram Sharma. Smoking constricts the flow of blood throughout the body and is thought to prevent oxygen from getting to tissues that are trying to heal, according to the authors. In September, a review of surgeries to repair knee ligaments found that smokers tended to have worse outcomes, including not being able to get back full knee function. For the new report, published in the Annals of Surgery, Sharma and his colleagues studied patients included in a nationally representative database of U.S. surgeries between 2005 and 2010. Overall, 47,574 patients were included in the analysis. All had part of their colon or rectum removed, a surgery known as a colorectal resection, either because of cancer, diverticular disease or inflammatory bowel disease. About 60% of the patients had never smoked, 19% were former smokers and 20% were current smokers. The researchers looked at the 30 days after surgery to see how many patients in each group suffered either a major complication - such as severe infection, heart or breathing problems or death - or a minor complication, such as an infection at the surgical site or in the urinary tract. Sharma's team found that current smokers had a 30% greater risk of having a major complication compared to patients who never smoked, and an 11% greater risk than ex-smokers. Among 9,700 current smokers, for example, there were 1,497 major complications and 1,448 minor ones, whereas the 9,136 ex-smokers had 1,374 major and 1,386 minor complications. Never smokers, the largest group numbering 28,738, had 3,316 major complications and 3,462 minor ones. Current smokers were also 1.5 times as likely to die within 30 days of surgery as never smokers. In addition, the longer someone had smoked - that is, the greater their number of "pack years" - the stronger their chances of complications, the researchers note. "We were not completely surprised (by the results). We know smoking is not good and there have been other studies that show smoking is a problem," Sharma said. There were, Sharma's team acknowledges, some limitations in the study. For example, ex-smokers were defined as patients who had not smoked in at least one year, therefore, some more recent ex-smokers may have been included with current smokers, leading the benefits of quitting to be underestimated.

Sharma, Abhiram, et al., Tobacco Smoking and Postoperative Outcomes After Colorectal Surgery. Annals of Surg. October 2012. doi: 10.1097/SLA.0b013e3182708cc5

23. Acupuncture May Help with Intestinal Healing (Nov.15/12)

Researchers conclude that acupuncture significantly reduces intestinal disruptions after laparoscopic surgery for colorectal cancer. A randomized group of 165 patients were divided into three groups. Group 1 received electroacupuncture at St36 (Zusanli), SP6 (Sanyinjiao), LI4 (Hegu) and SJ6 (Zhigou). Group 2 received sham Acupuncture at Heguacupuncture, a type of simulated acupuncture used to rule out the placebo effect. Group 3 was the control group and received no acupuncture. The time to defecation was significantly reduced in the acupuncture group over the other groups. Secondary benefits of acupuncture were a reduced need for pain medications, decreased recovery time needed prior to walking and a decrease in the length of stay at the hospital.

Simon, S.M., et al., Electroacupuncture Reduces Duration of Postoperative Ileus After Laparoscopic Surgery for Colorectal Cancer. Gastroenterology. Division of Colorectal Surgery, Department of Surgery, The Chinese University of Hong Kong, Prince of Wales Hospital, Shatin, Hong Kong. 31 October 2012. Published online 08 November 2012.