Clinical Pearls

This column is featured in every issue of the Cancer Strategies Journal, edited by Dwight McKee, MD. Do you have a Clinical Pearl that you would like to share with our readers? Please forward them to editorial@cancerstrategiesjournal.com.

Adrenal Fatigue As A Potential Differential Diagnosis

Given the rigors of cancer treatment, it's wise to keep adrenal fatigue in mind as a potential differential diagnosis. Especially for patients who've received extensive conventional treatments, been on significant steroid dosages, struggled with sleep disturbances, or suffered protracted pain, it can be helpful to offer adrenal support as part of their healing process. Evaluation of adrenal restoration needs can be based on clinical signs and symptoms, as well as on serum DHEA-s and salivary cortisol and DHEA assessment. I encourage people to focus on sleep hygiene and healthy dietary proteins, quality fats, cooked vegetables, and a modest amount of sea salt as foundational healing elements. Next, it's useful to dose adaptogenic botanical formulas, such as Botanabol and Power Adapt (Natura), at the high end of their respective ranges. And finally, when people are really depleted, it's valuable to supplement bio-identical hydrocortisone and DHEA to "spare" adrenal function and afford an easier recovery.

Often, I have immediate-release capsules compounded that are 5 mg hydrocortisone and 5 mg DHEA, and I start patients with 2 capsules in the morning before breakfast and 1 capsule in the early afternoon, no later than 2pm. As signs and symptoms improve, first I reduce the morning dose to 1 capsule, then I eliminate the afternoon dosage, and, finally, I withdraw the remaining morning capsule. The whole process may take a few months, and people I've treated often notice quite an improvement in their sense of well being and recovery upon starting this regimen.

Submitted by Mark Bricca N.D. L.Ac.
Ashland, OR

Evaluate Small Intestinal Bacterial Overgrowth

Many conventional cancer treatments are quite tough on the gastointestinal tract, so it's expected that we may see significant alterations in patients' gut microbiomes following strong treatments. Most people, given good dietary, lifestyle, and supplemental support recover healthy gastrointestinal function following intensive therapy just fine, but some seem to struggle ongoing with a variety of symptoms classifiable as irritable bowel syndrome. In these patients, and when "standard" interventions fail to yield expected improvements, it can be wise to evaluate for possible small intestine bacterial overgrowth, or SIBO. This can be easily accomplished via either a lactulose or glucose hydrogen breath test.

My colleagues, Drs. Steven Sandberg-Lewis and Allison Siebecker, both recognized experts in SIBO diagnosis and treatment are affiliated with the National College of Naturopathic Medicine clinic laboratory, so I like to use that lab for SIBO testing in order to get reliable results; test kits can be mailed, and it's easy for patients to collect requisite breath samples at home. In the case of results deemed to be positive for SIBO, it can be transformative for patients to follow a dietary program very low in fermentable polysaccharides as well as take a 14-day course of rifaximin, an antibiotic that stays localized in the gastrointestinal tract. Following this intensive therapy, patients often have dramatic improvement in distressing symptoms, and then they can maintain their gastrointestinal health via ongoing dietary and simple supplemental means. A terrific website with info on SIBO diagnosis and treatment is *www.siboinfo.com*.

Submitted by Mark Bricca N.D. L.Ac.
Ashland, OR

PHY906 1800 Year Old Chinese Botanical Formula

I use this formula for chemotherapy induced mucositis and diarrhea.

- Decreases gastrointestinal toxicity induced by chemotherapy
- Restores the intestinal epithelium by promoting the regeneration of intestinal progenitor or stem cells and several Wnt signaling components.
- Anti-inflammatory effects
- Decreases the infiltration of neutrophils or macrophages, TNF alpha-tumor necrosis factor-alpha expression in the intestine, and proinflammatory cytokine concentrations in plasma.
- Inhibits NFkB nuclear factor kappaB, cyclooxygenase-2, and inducible nitric oxide synthase

Scutellaria baicalensis	Huang Qin
Paeonia lactiflora	Bai Shao
Fructus Zizyphus	Da Zao
Glycyrrhiza glabra	Gan Cao

Kummar, S.M. et al. Phase I Study of the Chinese Herbal Medicine PHY906 as a Modulator of Irinotecan-based Chemotherapy in Patients with Advanced Colorectal Cancer. Clinical Colorectal Cancer, Vol. 10, No. 2, 85-96 © 2011 Elsevier Inc.

Wang, E. et al. Interaction of a traditional Chinese Medicine (PHY906) and CPT-11 on the inflammatory process in the tumor microenvironment, BMC Medical Genomics 2011, 4:38. http://www.biomedcentral.com/1755-8794/4/38.

Submitted by Nalini Chilkov, LAc, OMD
Santa Monica, CA

Heparin Therapy and Cancer Patients

From 1975 through 2012 there were over 192 articles showing activation of coagulation in cancer patients from solid tumors to leukemias, etc.[7] It doesn't make any difference if an article is about a solid tumor or a leukemia. An article from 2000 stated that both cancer procoagulant activity and tissue factor are expressed on tumor cells, leading to activation of clotting factors VII and X. This activated coagulation supports tumor growth and angiogenesis. Low molecular weight heparins are both effective and safe for prevention and treatment of venous thrombo-embolism events (VTE) in cancer patients.[8] There are over 720 Pub

Med articles on increased cancer survival associated with chronic heparin therapy between 1974 and 2012. Cancer and coagulation activation go hand-in-hand. Heparin decreases the spread of cancer. Heparin is anti-metastatic and the mechanism for this effect was reported in a journal article in 2010. [14]

Here are just a few of the many published articles about the beneficial effects of using heparin therapy in cancer patients. Special properties of heparins include:

- Heparins influence on metastasis [9]
- Anti-angiogenic effect of low molecular heparin in cancer [10]
- Anti-Xa levels of low molecular weight heparin and cancer survival [11]
- Anti-Metastatic effect of low molecular weight heparins [12]
- Low molecular weight heparin vs coumadin in DVT prevention (LMWH is superior to Coumadin) [13]

Since heparin is an effective therapeutic, let's look at the types of heparin in use, whether it be unfractionated standard heparin, low molecular weight heparins such as enoxaparin, or the newer direct anti-Xa inhibitors. Most prophylactic heparin therapy is given at half of the amount that would be used to anticoagulate a person in the hospital with an active blood clot. There are published guidelines for low molecular weight heparins for prophylactic use such as hip replacement, knee replacements and other surgeries that have high risk of developing a blood clot post-operatively; similar doses are used for prophylactic use in cancer patients. Proper heparin therapy can be determined with the Prothrombin Fragment 1+2 (F1+2, sometimes noted as F1.2) test. When the result is in the reference range, this will be the correct dosage of heparin. A heparin Anti-Xa assay will only give a peak level of therapy, not the actual control of the thrombin generation, so the F1+2 test is a much more functional test to use for monitoring heparin therapy in cancer patients. How do you tell if you have enough heparin on board? The specific anti-Xa Heparin assay may help somewhat, however when an elevated Fragment 1+2 is normalized due to heparin therapy, that is the proper level of heparin to keep the patient protected and stop excess thrombin generation.

References are included with David Berg's article and may be found at www.cancerstrategiesjournal.com/ReferencesVolume2Issue2.pdf

From David Berg, MS, CLS (NCA), FAHA
Phoenix, AZ

Lumbrokinase More Effective In the Cancer Setting

Natto soup was a delicacy of Japan prior to World War II. After World War II, when the western diet was introduced to Japan, the country developed much cardiovascular disease which they had not experience prior to the dietary change. Nattokinase derived from the soup helped to keep their vessels clean. Nattokinase is from the nattobacillus bacteria. Nattokinase activates urokinase, which is a potent fibrinolytic protease mainly produced in the kidneys and it's action is intravascular only. Lumbrokinase, from earthworms, activates tPA which induces both intravascular and extravascular fibrinolysis. Lumbrokinase will dissolve fibrin in the tissues as well as the blood vessels. The goal in cancer patients is to be able to get into the tissue area to dissolve fibrin around a tumor and that is one reason why lumbrokinase is much more effective in the cancer setting.

Based on more than 50 patients who experienced Herxheimer reactions (suggesting exposure of previously 'walled off' pathology to the immune system) with heparin and lumbrokinase therapies, a nomogram was developed for dosing lumbrokinase based on the alpha-2-AntiPlasmin (A2AP) blood value. When the A2AP is in the reference range, use one lumbrokinase twice a day. If it's above the reference range, use two twice a day and when the A2AP is really elevated, use two three times a day. If the A2AP is high, it's blocking fibrinolysis. You must give more activator to create more plasmin to override the high A2AP that is in the plasma. Once the Anti-Plasmin is saturated with Plasmin, the left-over Plasmin can dissolve the fibrin.

References are included with David Berg's article and may be found at www.cancerstrategiesjournal.com/ReferencesVolume2Issue2.pdf

Submitted by David Berg, MS, CLS (NCA), FAHA
Phoenix, AZ

Concentrated Anthocyanins for Cancer Care

One of the top therapeutic tools I've used to supercharge individual care is a pure 80 mg veg-capsule filled with anthocyanin pigment molecules from wild Scandinavian bilberries and woods-grown New Zealand currants. Anthocyanins have reams of research behind them for a wide range of chronic conditions. They're among the preeminent inflammation fighters, blood vessel stabilizers, and lipid modulators, completely free of side effects. For people with cancer, I use the highest potency purest anthocyanin product I've seen in the global marketplace, much more potent than any other anthoycanin berry-based supplement and containing 50% (40 mgs) delphinidin 3-glucoside per cap.

I had seen phenomenal results with concentrated anthocyanins for cancer, MS, and other conditions years ago before it became unavailable in the US, lowering a multitude of important markers by 10-20% including CRP, NFkB, PSA, various lipids including triglycerides and oxidized LDL, quickly and at moderate dose, 3-4 caps daily. What I saw on scans was more impressive for a few primary brain malignancies and a wide array of tumors and metastatic deceleration.

Delphinidin is particularly valuable for slowing angiogenesis and influencing HER2/neu, the oncogene involved in 1/3 of breast cancers, and others.

Though this particular 80 mg anthocyanin product fills in the gaps for what statins don't do—repairing arteries—it is also the most powerful maximizer of cancer down-regulation I've seen—also strengthening collagen and skin, and providing anti-catabolic, analgesic, anti-nociceptive effects.

When people have been on a truly potent well-designed protocol with scores of cancer inhibitory plant compounds/phytochemicals, herbal extracts, vitamins, minerals, and designer compounds--aminos, tripeptides and the rest, concentrated anthocyanins therapeutically synergize for cancer, COPD, asthma, dementia, rheumatoid arthritis, people recovering from stroke, macular degeneration and traumatic brain injury.

I saw 320 mg of this particular encapsulated mix of anthocyanins do what a study on them indicated, lowering CRP and other inflammatory markers that correspond with cancer progression by over 20%. Anthocyanins reduce arterial brittleness and aid their dilation and elasticity, all with no muscle aches or other side effects. Anthocyanins are food for the endothelium, nourishing and making blood vessels suppler. They also greatly reduce computer eyestrain. It's increasingly clear that cardio and cancer therapeutics are more similar than disparate. Herbalists tout the therapeutic power of adaptogens, herbs like ginseng that regulate bodily functions at low physiological cost. High potency anthocyanins bridge this gap as well, lowering risk and improving outcomes, through a time traveled intimacy with our physiology.

Submitted by Michael Altman, RH (AHG), CN, MIIS
Seattle, WA