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Beginning a New Series: Functional Oncology

In April 2015, *The Emperor of All Maladies*, a three-part documentary about the history of cancer research, debuted on public television stations throughout the United States. The documentary is based on the Pulitzer Prize-winning book of the same title authored by Dr. Siddhartha Mukherjee, and this is a work of literature that has had a deep influence on Dr. Bland and his thinking on the subject of oncology and its relationship to the functional medicine model.

This issue begins a three-month series in which Dr. Bland will explore the topic of cancer therapy in the 21st century. He begins with a dual interview this month with a husband-and-wife physician team who have dedicated their careers to their work at Cancer Treatment Centers of America (CTCA) in Zion, Illinois. CTCA has gained national attention over the past decade for its innovative approaches to cancer treatment which involve integrative therapies and a collaborative team approach that places the individual patient—and his or her personalized needs—at the center of the care model.

Clinicians/Researchers of the Month

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Dr. Pankaj Vashi is a gastroenterologist and Dr. Glynis Vashi specializes in internal medicine. Both began their medical practices in the early 1990s and their paths have led them to their current focus and passion: caring for oncology patients at Cancer Treatment Centers of America. Dr. Glynis Vashi is—quite literally—the first face many new patients at CTCA see, as it is her role to evaluate incoming clients before they move on to appointments with oncologists and other members of the treatment team. Dr. Pankaj Vashi is involved in the treatment of patients with gastric cancers. He has advanced training in the field of nutrition, which he feels has been invaluable in providing the highest quality of care possible to his patients. He has published numerous papers on the topics of metabolic support and nutritional interventions in oncology treatment.

Both of the Drs. Vashi comment on the shifting emphasis they have witnessed in recent years—from the diagnosis of disease (as taught in medical school and residency) to a greater awareness of the wellness state and personalized approaches to care. Dr. Pankaj Vashi discusses the evolution of research related to the microbiome and how it is impacting the field of gastroenterology as new discoveries continue to be made. He has a particular interest in the role of inflammation in the gut and the many ways this can impact systemic health.

The interview shifts to a discussion of the unique approaches to treatment that are being pioneered by Cancer Treatment Centers of America. CTCA has been investing significant resources into genomic testing, and of course they are already known for their integrative team approach to patient care. Both doctors describe transformative experiences they have witnessed among CTCA patients, many of whom come to CTCA after unsuccessful treatment elsewhere. Dr. Pankaj Vashi highlights CTCA's commitment to nutrition, which he feels is unmatched in other clinical settings. The Illinois center is a 40-bed facility and yet has 16 dietitians on staff, which has proven to be a great advantage as oncology patients can have a wide spectrum of nutritional needs that truly require personal assessment.

Both Drs. Vashi comment on their thoughts about the future—which can really only be defined in terms of about 5 to 10 years for a field such as oncology that evolves so rapidly. They both feel genomics and personalization will continue to revolutionize treatment options. Says Dr. Pankaj Vashi: "I think a time is going to come in our kids' generation where they will be laughing at us [for giving the same chemotherapy treatment to many patients]." Research, they say, is moving in the right direction. REF #1-4

Dr. Bland's Commentary

Gastric cancer is a leading cause of death globally, especially in developing countries. This phenomenon may be attributable to epigenetic changes that affect the gut microbiome, including quality of diet, lifestyle factors, hygiene, and presence of chronic infection. He specifically discusses research pertaining to methyl groups and the role of methylation in the activation of oncogenes, including the multiple ways folic acid can influence the biochemistry of the body. He provides numerous specific examples and cites recent papers in the medical literature. REF #5-11

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