Healing Cancer at the Root
HYPERION
Functional Medicine

THE G.I. MICROBIOME & BREAST CANCER

The G.I. microbiome, and microbiota contained there, can affect the risk and progression of breast cancer in several ways. Dysbiosis in the gut microbiota can lead to breast cancer because higher levels of estrogen in the gut stimulate breast tissue cell division and leads to cancer. Obesity is also linked to dysbiosis and higher levels of estrogen production. The "estrobolome" defines the part of the gut the contains bacteria that metabolizes estrogen. This part of the microbiome helps estrogen be flushed out of the body. Hyperion functional medicine utilizes stool testing to analyze the potential for toxic estrogen levels in the body and utilizes research-based treatments to increase detoxification of these estrogens[1,2]. Estrogen fuels about 70% of breast cancers.

The G.I. microbiome can affect the immune system, reprogramming cells in healthy breast tissue to help cancer spread. In research from the University of Virginia cancer center, it was found that an unhealthy gut triggers changes in normal breast tissue that helps breast cancer spread.

The G.I. microbiome can be disrupted by poor diet, long-term antibiotic use, obesity or other factors. The disrupted microbiome reprograms important immune cells called mast cells in healthy breast tissue to facilitate cancer's spread[3,4].

Bacteria in the gut can produce metabolites. These can be genotoxic[5]. Diversity in the G.I. microbiome is important for an effective chemotherapy response and prognosis. Microbiota in the gut can also predict side effects like weight gain, constipation, and neurological symptoms[6].

Bacteria in the gut send signals to the mitochondria, this has been observed to alter mitochondrial metabolism, activate immune cells, induce inflammation, and alter the intestinal barrier. Dysbiosis of the microbiome in the gut and the resulting mitochondrial dysfunction are associated with chronic intestinal inflammation and cancer[7].

A comprehensive stool analysis is essential to evaluate the health of the breast cancer patient's microbiome and the overall function of the G.I. system. Hyperion functional medicine uses stool testing in patients who are in the Phase 1 Functional Oncology Program. The G.I. stool test is used to evaluate the microbiome for dysbiosis, potential for immune dysfunction, estrogen detoxification, inflammatory markers, bacterial metabolites, infectious bacteria, parasites, and overall microbial diversity.

A detailed and stepwise functional treatment plan is made based on the results of the stool test which may include prescribed beneficial probiotics or prebiotic's, G.I. specific nutritional recommendations, pharmaceutical grade supplements as indicated, and botanical antibiotic treatment remedies to balance the gut microbiome based on the microbiome testing results.

CANCERROOTS Collaborating for a Cure

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