Myth: The macrobiotic diet, a common dietary alternative, can cure cancer.

Answer: The various cultures present in the United States are filled with contradictions when it comes to nutrition. Americans are bombarded with fast food franchises and restaurants serving larger and larger portions of mass-produced food. However, at the same time, media outlets and infomercials report on the obesity crisis in America and countless diet plans, prepped and cooked lunches, or dietary supplements are offered from a variety of sources. More nutrition information has become available to the average consumer through product labeling and the internet and as, these factors continue to interplay with one another, interest in the connection between nutrition and disease increases.

Macrobiotic Diet

A macrobiotic diet (or macrobiotics) is a dietary approach that involves eating grains as a staple food supplemented with other foodstuffs such as vegetables and beans and avoiding the use of processed or refined foods (see Figure 1). The macrobiotic diet was first introduced in the 18th century by German physician Christoph Hufeland and the belief that a less austere diet has evolved into a diet regimen and several books containing first-hand accounts of how the diet cured people’s cancer (Kushi et al., 2001). The macrobiotic diet once more entered the public eye in 1972 by Michio Kushi, a student of Ohsawa’s macrobiotic diet included 10 progressively restrictive stages with the 10th stage being a diet of only water and brown rice. However, by the late 1960s, severe complications arose in individuals who were following Ohsawa’s diet regimen. A statement from the American Medical Association’s Council on Foods and Nutrition documented cases of scurvy, anemia, hyperproteinemia, hypocalcaemia, emaciation and malnutrition, starvation, renal failure, and even death (ACS, 1993).

The macrobiotic diet was denounced by the Council on Foods and Nutrition and its popularity faded until the early 1980s. At that time, Kushi published his macrobiotic diet regimen and several books containing first-hand accounts of how the diet cured people’s cancer (Kushi et al., 2001). The macrobiotic diet once more entered into American dietary patterns. Kushi’s less austere diet has evolved into a diet consisting of the daily food consumption of 40%–60% whole grains (organically grown and home cooked) 20%–30% vegetables (including a small volume of pickle varieties), and 5%–10% beans, bean products, and sea vegetables. Small amounts of fish, seeds or nuts, and locally grown seasonal fruit are permitted weekly. Rare portions of red meat, eggs, poultry, and dairy products are permitted monthly. Refined sugars, artificial sweeteners, vitamin and mineral supplementation, and other chemical additives are avoided (Cunningham, 2001; Kushi et al.).

Limited Research

Research on the connection between a macrobiotic diet and cancer treatment has been limited despite the surge of interest in complementary and alternative medicine (CAM) options by patients and healthcare professionals. In a 2007 survey conducted by the National Cancer Institute (2007), 52.9% of researchers and 72.4% of practitioners surveyed indicated an interest in collaborative research in nutritional therapeutics. Of the practitioners surveyed, 84% had included some type of nutritional therapy into their treatment plan. The macrobiotic diet was one of 14 nutritional therapies listed in survey examples.

In a study conducted by Risberg, Lund, Wist, Kaasa, and Wilsaard (1998), 45% of patients with cancer involved in the study used some type of CAM therapy (Granai, 1999, Risberg et al.). The National Center for Health Statistics completed a comprehensive survey of Americans’ use of CAM in 2004 (N = 31,041), and found that the use of CAM crossed all age groups, races, economic backgrounds, education levels, health factors, and genders (National Institutes of Health [NIH], 2004). Of the respondents, 1.087 (3.5%) reported using diet as a form of CAM in the past 12 months, making it the 10th most common therapy (NIH).

Findings from the limited research that has studied macrobiotic diet and public opinion are mixed. Some found that the macrobiotic diet was nutritionally inappropriate, ineffective as a treatment, and potentially harmful to patients with cancer (ACS, 1993, 2007; August, 2003; Cassileth

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et al., 2007; Chemocare.com, 2005; Cunningham, 2001; Weiger et al., 2002). Areas of concern for nutrition deficits include caloric intake, protein, vitamin (D, B12, and ascorbic acid), and mineral (calcium, iron, and zinc) deficiencies (ACS, 1993, 2007; August; Cassileth et al.; Chemocare.com; Cunningham; Weiger et al.). Others have determined that, because the macrobiotic diet is based on whole grains, vegetables, and fruits, with minimal red meat and dairy product consumption, the diet does not treat cancer but it may help prevent some occurrences (ACS, 2007; Kushi et al., 2001). In this way the macrobiotic diet is actually very similar to the ACS’s dietary guidelines. Evidence has shown that increased amounts of dietary fiber, fruits, and vegetables decreases the risk of cancer in a variety of locations (ACS, 2007; August; Kushi et al.). And, foods such as red meats, eggs, and refined grains (all of which are restricted or prohibited on a macrobiotic diet) have been shown to increase the risk of cancer in the colon or rectum, prostate, pancreas, ovaries, and kidneys (Kushi et al.).

Breast Cancer

Castagnetta et al. (2002) and Berrino, Villarini, De Petris, Raimondi, and Pasanisi (2006) demonstrated that, as a result of eating more whole grains, soy products, and legumes, patients’ testosterone levels dropped. This correlates with a lower incidence of breast cancer in postmenopausal women. In addition, weight control was achieved in overweight or obese patients, which is a factor in patients with breast cancer, and metabolic syndrome was reversed, decreasing the risk of breast cancer recurrence through lower serum insulin levels (Kushi et al., 2001).

Conclusion

A more systematic research approach is needed to evaluate the risks and benefits of a macrobiotic diet in its relationship to cancer prevention and the disease process (August, 2003; Granai, 1999; Kushi et al., 2001; NCI, 2004a, 2004b). Until more definitive research findings of either risk or benefit exist, a patient following a macrobiotic diet and not experiencing any negative side effects should be supported by his or her healthcare providers. However, clinicians should be aware of the potential for nutrition deficiencies if the macrobiotic diet is followed rigorously. Does a macrobiotic diet work to treat cancer? No, it is not a cure, but researchers need to learn more about nutrition and macrobiotics and their relationships with cancer.

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