# Case: Causation vs. correlation: Naturopathic medicine vs. natural history of a disease

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# Introduction

Urothelial carcinoma (UC) is the fourth most common type of cancer and arises from the urogenital epithelial. Between 5% and 10% of primary UC originate from renal pelvis and ureters and are collectively called upper tract urothelial carcinoma (UTUC). The estimated annual incidence of UTUC in Canada is 1–2/100 000.¹ It most commonly affects patients in the sixth and seventh decade of life with a male predominance. In developed countries, tobacco smoking is the greatest risk factor. UTUC is often multifocal, as the entire urothelial surface is affected by the same carcinogen.²

The gold standard treatment of localized UTUC is a radical nephroureterectomy due to the frequent occurrence of synchronous or metachronous tumours. For patients with high-risk disease (i.e., T3–T4 and/or patients with positive lymph nodes), adjuvant chemotherapy is also suggested.<sup>2</sup> Postoperative recurrences are common. In general, bladder recurrence occurs in 22–47%, while extravesical recurrences occur in 0–12% of patients with UTUC.<sup>1</sup>

Naturopathic treatments have frequently been mentioned in the context of "curing" cancer. However, there are limited studies that follow up on these numerous treatment options and the studies that are available often are unreliable or invalid.<sup>3</sup> Therefore, many of these rare cases are generally attributed to the spontaneous regression of cancer.

We present a case of a patient with UTUC who had a local recurrence following definitive therapy and experienced resolution of cancer following a naturopathic treatment option.

# **Case report**

A 65-year-old male had a left nephroureterectomy for a high-grade pT3 urothelial carcinoma of the left renal pelvis in 2001. Surveillance computed tomography (CT) done in December 2002 and March 2003 revealed para-aortic lymphadenopathy that was enlarging over time. A CT-guided biopsy in April 2003 was found to be positive for malignancy, consistent with UC infiltration of a lymph node. However, the patient refused to have subsequent chemotherapy and instead chose a naturopathic option that he had learnt about through word of mouth known as the Bruess Cancer Cure.

Following this diet, he had a CT scan in May 2004 that showed the para-aortic nodule to be resolved. He had subsequent surveillance imaging with regular cystoscopies until March 2013 that were stable with no evidence of recurrent disease. He also underwent subsequent CT scans and magnetic resonance imaging (MRI) in 2017 related to a large bowel obstruction that further confirmed no evidence of recurrent disease.

#### Discussion

The first documented case of the "healing power of nature" was over 2400 years ago by Hippocrates, who believed in the body to heal itself with the help of nature. Since then, naturopathic medicine has broadened its scope to include the use of botanical medicine, clinical nutrition, hydrotherapy, homeopathy, naturopathic manipulation, and more. Following a decline in favourability in the 1900s, there has been a recent resurgence in naturopathic medicine with the public desire for greater control in their health and dissatisfaction with "allopathic" medicine.

One of the most famous Canadian cases supporting claim to naturopathic medicine is the story of Ronnie Hawkins, a famous Canadian musician who was clinically diagnosed with terminal pancreatic cancer in 2002 by his surgeon, despite negative biopsies. After refusing chemotherapy and trying various forms of alternative treatments, Ronnie accepted the help of an adolescent child from British Columbia, who was

believed to have telepathic healing powers. Following several treatments from this child, an MRI in 2003, confirmed by his surgeon, suggested Ronnie was cancer-free.<sup>4</sup>

This case report, in particular, describes a 65-year-old male with metastatic recurrence of UTUC proven by a biopsy, which had later resolved without conventional medical treatment.

The Bruess Cancer Cure consists of a 42-day fast in combination with "special" vegetable juices and teas. The evidence behind this diet is poor, with only one inadequately designed clinical trial conducted without the use of control groups and proper exclusion criteria.<sup>5</sup> The trial showed two complete remissions, but three deaths in eight patients with metastatic disease. An alternative explanation for the disappearance of the patient's metastatic cancer is spontaneous regression. There are case reports describing regression of multiple pulmonary metastases from UTUC.<sup>6</sup> This phenomenon is believed to be secondary to immune system activation, angiogenesis, and matrix metallo-proteinase activation.<sup>7</sup>

With growing popularity in complementary and alternative medicine (CAM), this has become a common interest in patients seeking different forms of cancer treatment. CAM has been defined as, "a group of medical and healthcare systems, practices, and products that are not presently a part of conventional medicine," and can be used in addition to conventional treatment (complementary) or as a replacement (alternative). This definition includes many treatment options with varying origins and levels of evidence. Because of this, the Canadian Medical Association's (CMA) position on CAM is that it should not be recommended by physicians and publically funded until they are supported by scientifically valid evidence. However, they do recommend patients to report use of all health products so that physicians can have a discussion with patients about the reliability of these treatment options and potential harm associated with concomitant conventional treatment.8

It is important to take this a step further by first understanding why patients are turning to CAM as a treatment option. This gain in popularity is a result of combination of factors, including: curiosity, distrust and dissatisfaction of conventional treatments, and belief in a "holistic" approach to health. Better communications with patients can be important in identifying motivation to use CAM, improving patient-physician relationship, assisting with appropriate use of CAM, and reducing any dissatisfaction with oncology medicine. In the most optimal situations, a careful balance can be attained with evidence-based medicine and the comfort from the best of CAM options.

Recently, there has been a rise in the integrative oncology centres across Canada. The aim behind these centres is to provide a comprehensive approach to patient care by treating cancer patients physically, mentally, and emotionally. There is a collaborative approach with patient, families, family physicians, oncologist, surgeons, and naturopathic doctors

to optimize overall patient wellness. This is an interesting approach, as it can incorporate patient preferences for CAM, but also incorporate a safe approach to cancer treatment. Furthermore, research has shown that a number of complementary therapies can help lessen treatment side effects, such as nausea or fatigue, as well as cope with stress and anxiety that patients may face during their cancer journey.<sup>9</sup>

# **Conclusion**

With a lack of evidence behind the Bruess Cancer Cure, it is difficult to accept its efficacy as a treatment for cancer. An alternative explanation to the resolution of the patient's cancer is spontaneous regression. Although rare, there have been documented case reports in literature for various cancers, including metastatic UTUC. Despite a lack of evidence for naturopathic treatments, it is important to be aware that these options have gained popularity in providing comfort and relief to patients. Therefore, if the patient is determined to consider these options, it should be safely used in conjunction with any traditional treatment.

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