



CAROL PETERSON

2019-20 MOLLY APPEAL — PATIENT STORY

Immunotherapy halts dangerous squamous cell carcinoma for Nova Scotia woman

For more than 20 years, Carol Peterson has been seeing a dermatologist on a regular basis to remove basal cell carcinomas that continually arise on her very fair skin.

“I grew up on a farm, where we spent all day every day outside with no protection from the sun,” notes Carol. “We didn’t think anything of it at the time, but all these years later, I am living with the results.”

Over the years, Carol had become accustomed to having as many as 20 carcinomas removed per visit. Although she disliked the liquid nitrogen treatment, which burns off the growths, she never felt her overall health, safety or wellbeing were at risk. The annual or semi-annual treatments were just something she was used to, a necessary part of life.

This all changed in late 2016, when Carol’s toe was badly scraped by the leg of a table at a dance one evening. The scrape developed into a sore that would not heal and, about two months later, a strange round knob appeared at the site of the sore. Another month later, Carol noticed a pucker in the skin of her upper thigh. Soon a lump the size of a walnut arose under the skin. She was in Florida for the winter with her husband at the time, but the couple decided to cut their trip short after doctors in Florida did a CAT scan and found a mass in her upper leg.

“I didn’t want to go for the surgery in the United States,” says Carol. “We decided to go home and get the surgery as quickly as possible.”



Dr. Roderick McKenney, the surgeon who removed the mass, realized the situation was more complicated than originally thought when he found cells from the tumour infiltrating nearby lymph nodes. "It was disgusting," recalls Carol, who was awake for this surgery. "It looked like a Bratwurst sausage with strings coming out of it."

What it was, really, was squamous cell carcinoma, an insidious and potentially deadly form of skin cancer than can crawl through the body from nerve ending to nerve ending. Eradicating it would involve more specialized treatment.

Carol is very grateful that Dr. McKenney referred her to surgical oncologist, Dr. Carman Giacomantonio, who performed a radical lymph node resection and "sartorial flap." He had to remove so much tissue from her upper thigh, it overly exposed a major artery. To protect the artery, he took her sartorius muscle—which attaches from the front of the pelvic bone to below the knee—cut it at the pelvic bone and rotated it to cover her exposed blood vessels.

After the surgery and 25 radiation treatments, Carol is now apparently cancer free—although she has frequent scans to make sure no new cancers have emerged.

To minimize the chances of new cancers forming, Dr. Giacomantonio administers an intravenous immunotherapy injection to Carol every couple months or so. This stimulates her immune system to fight cancer cells in their earliest stages of growth, knocking back potential tumours before they can take hold and spread. As a cancer surgeon and scientist, Dr. Giacomantonio is working to develop new immunotherapy strategies to fight several kinds of cancer, including squamous cell carcinoma.

"The first time I saw Dr. Giacomantonio, he said he would most likely have to remove the toe where I first had the sore," says Carol. "But, within three weeks of treating the toe with immunotherapy the round knob shrank and went away. I may have to lose the toe at some point, but it's okay for now."

The immunotherapy treatments have also eradicated a lump that was forming on the back of Carol's calf, and others growths that had started to emerge on her body have also disappeared as a result of the treatments.

"If I'd had the injections sooner, I may not have needed the lymph node removal or the radiation," notes Carol. "The immunotherapy is working so well, Dr. Giacomantonio is amazed by how well my system responds to it."

Carol is keen to lend her support to Dalhousie Medical Research Foundation's 2019 fall Molly Appeal, as funds raised through the appeal will be used to purchase sophisticated new mass spectrometry equipment that will allow Dr. Giacomantonio to dramatically accelerate his progress in developing cancer immunotherapies.

"It's hard to rest easy with so much uncertainty about what's happening in my body, but having Dr. Giacomantonio as my oncologist is a bonus," Carol says. "Positive thinking is my biggest way to cope... that, and my love of travel. I went to Portugal with my daughter and Mexico with my husband last fall. We're planning a trip this year to Las Vegas, the Grand Canyon, Route 66 and the International Hot Air Balloon Festival in Albuquerque. As long as I have a trip to look forward to, I can manage."