

WVU Medicine Children's, WVU Cancer Institute work to reduce pain in pediatric cancer patients

Mon, February 22, 2021, 12:01 AM

Feb. 22—Newsroom @DominionPost.com Chemotherapy is difficult for any child, but when it causes mucositis, a painful side effect that causes ulcers to form in the mouth, it gets even harder. These children often require more pain medications and longer hospital stays.

Ben Wilson, 11, of Dilliner, Pa., was one of those patients. He was diagnosed with Ewing sarcoma. The chemotherapy regimen he was on was known to cause mucositis, but it was his best course of treatment. When he developed mucositis, his mother, Alison Wilson, talked to Dr. Hannah Hazard-Jenkins, director of the WVU Cancer Institute, about the trouble Ben was having with sores in his mouth and how difficult it was to maintain a lengthy mouthwash regimen to try to treat them.

"We tried some preventive treatments, including cold therapy, where you have them eat a lot of ice and do a series of seven mouthwashes, " Alison Wilson said. "The cold

therapy didn't help much. Plus, it's hard to use seven mouthwashes in a day, especially if you're a kid, and they don't taste very good."

Hazard-Jenkins reached out to Dr. Geraldine Jacobson, WVU Cancer Institute Radiation Oncology chair, who contacted the pediatric oncologists at WVU Medicine Children's to discuss whether the WVU Cancer Institute's new THOR device would help Ben.

The THOR photobiomodulation device uses low-level lasers in the near-infrared range that stimulate and promote wound healing and regeneration.

"Low-level laser therapy is indicated by a multinational supportive care association for treatment of oral mucositis in adults," Jacobson said. "We have been using this treatment in the Department of Radiation Oncology since June to reduce oral mucositis in our head and neck cancer patients. The THOR device can be used outside the mouth along the cheek, jaw and neck to prevent mucositis lesions or inside the mouth to treat active wounds. There were positive reports of using this treatment for pediatric patients, so we decided to offer it to Ben."

Dr. Patrick Tomboc, chief of WVU Medicine Children's Hematology and Oncology, said he was amazed at how quickly the treatments helped Ben and prevented new sores

from forming.

"This device greatly improves the quality of life for these patients," Tomboc said. "Ben has required much less pain medication than most patients who develop mucositis. We've been able to reduce the length of his hospital stays and really help with his pain management without any side effects."

The device is also indicated for use in wound healing, which helped Ben when the surgical wound on his foot was slow to heal.

"Ben had really been struggling with his wound healing all summer, and it's always a concern when you start chemotherapy with an open wound because it can slow healing even more, leaving it open to possible infection," Alison Wilson said. "After a nurse in Radiation Oncology suggested we try it on his foot as well, we discussed it with his doctors. There were so few possible side effects that we decided to go ahead and see if it would help. We had more healing in one month than we had all summer."

"We're really grateful that they were willing to look into using this device on kids to see what other institutions were using it and the pros and cons of the treatment. We're also really excited that it has opened the door for other pediatric patients here," she added.

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