

■ CNE Article

# Incidence and Self-Management of Hand-Foot Syndrome in Patients With Colorectal Cancer

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The purpose of this article is to describe the incidence of hand-foot syndrome (HFS) and self-management of patients with it, including their self-recognition, supportive care, and outcome at home. Study participants were patients with colorectal cancer (CRC) who received adjuvant chemotherapy after surgery. About 67% of participants had HFS, most at grade 1. The median chemotherapy cycle where HFS first appeared was cycle 2. The majority of patients knew nothing about how to alleviate HFS, and they used no methods to treat it. HFS can worsen the quality of life of patients with CRC receiving adjuvant chemotherapy. The incidence of severe-grade HFS was relatively high in the current study, and patients showed poor self-recognition and self-management. Nurses play a key role in educating patients on how to recognize HFS and use self-management techniques.

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**W**ith more than 940,000 new cases and about 500,000 related deaths reported worldwide each year, colorectal cancer (CRC) is one of the most common malignancies in the world. In the United States, despite a slight decrease in its incidence and mortality since the 1980s, CRC remains the third most common cancer, with an estimated 102,480 new cases and 50,830 deaths in 2012 (Siegel, Naishadham, & Jemal, 2013).

Combination therapy with surgery is the principle treatment for CRC. XELOX (oxaliplatin plus capecitabine), FOLFOX (oxaliplatin, calcium folinate, and 5-fluorouracil), and capecitabine monotherapy are the most common chemotherapy regimens used for patients with CRC. Those therapies, because of the addition of 5-fluorouracil, capecitabine, and other chemotherapeutics, may cause hand-foot syndrome (HFS) (Janusch et al., 2006).

HFS, also known as palmar-plantar erythrodysesthesia, palmar-plantar erythema, acral erythema, and Burgdorf reaction, is a skin reaction that appears on the palms of the hands or the soles of the feet. The distinctive and relatively frequent toxic reaction is related to certain chemotherapeutic agents. Clinical manifestations of HFS include a prodrome of dysesthesia on the palms and soles, followed in a few days by painful, symmetric, well-defined erythema and edema, which may influence a patient's quality of life (Gressett, Stanford, & Hardwicke, 2006).

Supportive treatments such as topical wound care, elevation, and cold compresses may help to relieve the pain and could be considered as preventive measures when drugs with a strong association with HFS are going to be administered (Nagore, Insa, & Sanmartín, 2000).

5-fluorouracil and capecitabine, which are important components in the CRC chemotherapy regimens of XELOX and FOLFOX, are most frequently associated with HFS. Because most patients are at home between chemotherapy sessions, HFS happens mostly in patients outside of the hospital, so the incidence of HFS and the self-management strategies of patients with CRC to ameliorate the symptoms are seldom reported. Therefore, the authors retrospectively studied 174 patients with CRC who received adjuvant chemotherapy in their institution during a one-year time frame to identify the incidence of HFS.

## Methods

### Sample

Patients who had histologic or cytologic confirmation of CRC and received adjuvant chemotherapy after surgery from May 1, 2009, to May 1, 2010, in a CRC center in Beijing, China, were enrolled in the study. They had received one of three regimens: XELOX, FOLFOX, or capecitabine alone.