

# Pielęgnacja skóry w czasie i po chemioterapii, wybranymi lekami stosowanymi w terapiach przeciwnowotworowych

## Skin care during and after chemotherapy, with selected drugs used in anticancer therapies

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### STRESZCZENIE

W trakcie stosowania chemioterapii może dojść do objawów ubocznych ze strony skóry, pod postacią zespołu rękostopa. Objawy różnym nasileniu, odmrowienia, pieczenia aż do wystąpienia pęcherzy i ran. Właściwą profilaktyką i pielęgnacją skóry w trakcie chemioterapii może być profilaktyka i pielęgnacja skóry w trakcie chemioterapii. Właściwą profilaktyką i pielęgnacją skóry w trakcie chemioterapii może być profilaktyka i pielęgnacja skóry w trakcie chemioterapii.

**Słowa kluczowe:** chemioterapia, zespół rękostopa, pielęgnacja skóry, resweratrol

Hand-foot syndrome (HFS), also called Palmarplantar ad-throdysesthesia (EPP), is induced by anti-angiogenic drugs, such as sorafenib, sunitinib, and pazopanib [17] and cytotoxic drugs, for example, pegylated liposomal doxorubicin (PLD), 5-a uorouracyl, capecytidine, cytarabine, vinorelbine, interleukin in high doses, gemcitabine, docetaxel, paclitaxel. [8,9,10].

Course of the HFS differs depending on which formulations have been used in cancer therapy. During the administration of anti-angiogenic drugs, lesions arise mainly in the area exposed to pressure or friction (heel, the lateral surfaces of the feet, head, metatarsal bones and metacarpophalangeal phalanges joints). In these areas hyperkeratosis forms, often accompanied by an erythema ring and inflammation. [11, 12, 13].

When using conventional cytotoxic drugs, HFS symptoms don't only occur in areas exposed to pressure. Hyperkeratosis

### ABSTRACT

During chemotherapy, may cause side effects, in the form of the hand-foot syndrome. The symptoms vary in severity, from tingling and burning to the occurrence of blisters and even skin necrosis which cause discomfort and reduce the quality of life of the patient. They can also be the cause of dose reduction cytostatics, defer chemotherapy and sometimes its discontinuation. Proper prevention and skin care during chemotherapy aims to improve the quality of life of the patient.

**Keywords:** chemotherapy, hand-foot syndrome, skincare, resweratrol

is preceded by inflammatory changes with erythema and desquamation [14, 15].

Classical HFS often begins with prodromal symptoms: erythema, numbness, tingling, hyperalgesia, itching, dry skin, swelling [11]. These symptoms are initially mild and do not restrict patients from performing normal activities of everyday living. HFS can begin, depending on the programs of treatment, 2-12 days, or 2-3 weeks after administration of chemotherapy. Lack of proper care can lead to increased symptoms and the occurrence of painful swelling on the hand and the plantar surface, sometimes under the armpits, in the groin, and skin folds under the breasts, blistering, desquamation, ulcers and, in extreme cases, necrosis. This causes pain and often prevents the patient from doing the work and activities of daily living, which has a significant negative impact on the quality of life. These symptoms persist for 3-4 weeks and they can be overcome by taking prompt and proper treatment procedures.

**SUBSTANTIAL PATRON OF THE ARTICLE**

In the prevention of the formation of the HFS, it is very important to conduct prophylactic procedures. Before the start of planned anti-cancer therapy, it is recommended to remove hyperkeratosis using keratolytic agents (ointments of 1050% urea, 25% salicylic acid) or by mechanical means (pedicure).

For skin care with HFS it is recommended:

- To use topical moisturizing and oiling creams, to prevent drying, cracking and keratosis of the skin
- To use emollient creams,
- To use soothing and calming creams on irritated skin,
- To use gel orthotics,
- To wear loose, airy clothes with natural fibers
- To use soft, comfortable footwear, which prevents abrasions and injuries. To avoid standing position for long periods of time,
- To use cold compresses on the hands and feet while administration of cytostaticscausibg HFS,
- To reduce the washing of hands and feet in hot water,
- To take cool showers,
- To cool down hands and feet with ice-cold compresses or cold running water for 15 to 20 minutes at once (avoid applying ice directly to the skin),
- To avoid exposure to heat sources, including saunas, sun,
- To avoid activities that cause unwanted friction on the hands and feet during the first six weeks of treatment (e.g. crossing legs,

Table 1. The severity of palmar plantar ptyhrodsaesthesia (by CommonToxity CriteriaforAdverseEvents, version 4)

Severity	Symptoms
1.	Minimal skin lesions or inflammation of the skin (eg. Erythema, painless swelling, hyperkeratosis, numbness, tingling, burning or stinging,) painless. None of these symptoms limit patients performance of normal activities in daily life.
2.	Skin lesions (e.g. desquamation, blistering, bleeding, painful redness, swelling or hyperkeratosis) that cause pain, limit complex tasks of everyday life.
3.	Serious skin reactions (e.g. desquamation, blistering, bleeding, swelling, or hyperkeratosis, open skin ulcers) cause pain, limit daily activities.

resting on your elbows, knitting or crocheting, keyboarding, typing, running, aerobics, sports)

- To avoid contact with aggressive chemicals used in laundry detergents or cleaners,
- To avoid the use of tools and household items that require presiding with hands, (e.g. garden tools, knives and screwdrivers),
- Not to wear rings and wedding rings (can be a source of bacteria, as well as bacteria can become trapped between the ring and the finger and cause infection).

The severity of hand foot syndrome may vary depending on the person, even among people taking the same drug in the same form of cancer. Treatment of HFS depends on the severity of the symptoms. In the first degree, it is recommended to use moisturizing and oiling creams that contain urea, and adhere to care guidelines as that for the preventive procedures. In the second degree of the symptoms of HFS, follow the same recommendations as in the first degree, and introduce additional use of topical corticosteroids and inclusion of analgesics. In the third degree of HFS symptoms, the symptomatic and local treatment is used as in the second degree and antiseptic measures are recommended forblistering and erosions.

In the second and third degree of severity of HFS, a temporary adjournment, a lower dose of medication and, in extreme cases, end of chemotherapy are recommended.

In our center, for several months, a specialist Polish skin care cream for dry and sensitive skin, under the name of chemo DRYB6, is used. It seems that it would be useful to prepare patient's skin using moisturizing creams before the planned chemotherapy. Cream is recommended for people receiving chemotherapy, potentially producing hand-foot syndrome from the first days of treatment. It perfectly moisturizes and oils the skin, improves its condition and prevents drying out. Deeply oils



**ChemoDry B6** krem 

*Specjalistyczny krem do pielęgnacji skóry suchej i wrażliwej, znajdujący szerokie zastosowanie w praktyce klinicznej.*

Krem zalecany dla osób otrzymujących chemioterapię, potencjalnie wywołującą zespół ręka – stopa, od pierwszego dnia leczenia. Głęboko nawilża, natłuszcza dzięki oliwce z oliwek i masła shea, poprawia kondycję skóry. Alantoina i pantenol działają przeciwzapalnie. Mocznik, kwas hialuronowy, pantenol, skwalen i wit. E działają nawilżająco. Koenzym Q10, wit. E i resweratrol usuwają wolne rodniki. Mocznik zmiękcza również warstwę rogową skóry.

Krem przebadany dermatologicznie, nie stwierdzono działania drażniącego i alergizującego. Europejski certyfikat CPNP1518928

Skład: Aqua, Olive oil, Caprylic/Capric Triglycerides, Cetearyl olivate/Sorbitan olivate, Urea, Butyrospermum Parkii, Methyl Glucose Sesquistearate, Panthenol, Tocopherol acetate, Sodium hyaluronate, Squalene, Allantoin, PCA glyceryl oleate, Pyridoxine HCl, Ubiquinone, Benzyl Alcohol, Methylchloroisothiazolinone, Methylisothiazolinone, Sodium citrate.

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(olive oil, shea butter). Allantoin and panthenol contained in the cream are anti-inflammatory. Urea, hyaluronic acid, panthenol, squalane and vitamin E moisturize. Vitamin E and Resveratrol remove free radicals, act as an anti-oxidant. Urea also acts keratoplastically (softens the stratum corneum). Patients who use the CHEMODRY B6 cream are less likely to develop a second degree symptoms of HFS.

In patients who started using CHEMODRY B6 cream during already developed syndrome a significant easing of burning, itching, dryness of skin has been observed. CHEMODRY B6 can be used both as a preparation for conditioning the skin before chemotherapy as well as in mitigating the adverse therapy symptoms causing HFS.

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