

Gentle care for sensitive times – palliative skin care

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Skin care is an important component of palliative care and end-of-life care for terminally ill patients in order to make their remaining time as bearable as possible. However, there are a few things to bear in mind.

If the patient is initially still able to move around and organise a large part of their daily life themselves, there is little change in terms of skin care. However, this is the rare exception. As the illness progresses, care services and outpatient and podiatrist beauticians take over skin care, whether in the home, nursing home, hospital or hospice. Ideally, personal wishes regarding the cosmetics used are catered for, but preparations and treatments are usually adapted depending on the situation, especially if the patient is no longer able to make their own decisions. Problem-orientation on the part of the nursing staff and compliance on the part of the patient are becoming increasingly important.

The challenges

Bedridden patients pose a major challenge for care staff. On the one hand, it is about cleanliness, and on the other, about maintaining a good skin barrier function and minimising damage to the skin microbiome. This is a balancing act in hospitals, where absolute hygiene must be observed and disinfection is a top priority. In addition, damage such as pressure sores caused by prolonged lying and nappy dermatitis due to insufficiency of the excretory organs must be prevented. So what needs to be done?

Skin cleansing measures

- A guide can be toddler care, i.e. less aggressive cleansing agents with good dirt-carrying capacity are used. Compositions whose emulsifying ingredients are as physiologically degradable as possible and cause only minimal washout of barrier-active skin components are suitable here. These products naturally also have less of an effect on the skin microbiome.
- Plant oils with essential fatty acids can often be used as an alternative for cleansing the intimate area when nappies are used. They also provide care and make an anti-inflammatory contri-

bution through the formation of oxygen-containing metabolites.

- Vegetable oils or their aqueous nano-dispersions based on phosphatidylcholine and phosphatidylserine can also be used for cleaning as part of the prevention of pressure sores.
- If an antiseptic effect is required together with skin cleansing, for example in the case of infections, polyaminopropyl biguanide (INCI) can be used in a second step. It has a similar effect to endogenous antimicrobial peptides (AMP).

Skin care measures

If there are no specific problems, either the existing preparations are retained or, if necessary, a preventive change is made to formulations that avoid potentially incompatible substances and are even better optimised for the individual physiological conditions. This is because the skin becomes more permeable as a result of permanent corticosteroid medication, for example, and after some time reacts more sensitively to potential allergens such as preservatives and fragrance components. In this regard, possible side effects of the painkillers, antidepressants and antipsychotics frequently prescribed in palliative care must also be taken into account. It is important to look at the package leaflet.

Cosmetics whose ingredients do not accumulate when penetrating and permeating through the skin, but are broken down enzymatically without localised side effects, are described as physiological. However, their concentrations must not be so high that physical reactions such as dehydration and denaturation of protein structures occur, for example at high alcohol concentrations.

Another example is the frequently used urea, which causes (harmless) temporary irritation and even keratolysis in increasing concentrations. When it comes to creams, lamellar products free of synthetic O/W and W/O emulsifiers have now proven their worth. They contain hydrogenated phosphatidylcholine (PC-H), phy-

tosterols and ceramides and stabilise the barrier structure. PC-H also provides the necessary barrier-active long-chain fatty acids during enzymatic degradation.

The anhydrous variants of these compositions are oleogels, which contain a high proportion of triglycerides and counteract the tendency towards dry skin in older people in particular. Despite their high lipid content, they are only occlusive for a short time at most compared to paraffin-based lipogels. This is because the triglycerides are slowly broken down by the lipases of the skin microbiome and the epidermis and further degraded into short-chain acids, which contribute to the low pH of the skin surface. Moderate doses of oleogels are also suitable for preventing bedsores (decubitus ulcers) if swelling of the skin is to be avoided.

Problem areas

Easy spreadability plays a role in the application of preparations. Care staff will therefore favour lotions wherever possible. In addition to aqueous-alcoholic solutions, liposomal dispersions, which can absorb hydrophilic active ingredients, and nanodispersions, which still have an aqueous consistency even when loaded with plant oils, sterols and other lipophilic active ingredients, are particularly suitable for this purpose. Foams should also be mentioned with regard to preparations that are as low in excipients as possible, i.e. free of preservatives, for example. They are sterile, easy to spread, are supplied in pressurised gas cans and can be used well in foot care, for example.

Otherwise, from a hygiene point of view, airless dispensers with a double bottom should be used, which reliably prevent contamination of the dispenser contents from the rear. Crucible products are unsuitable, especially in the home and hospital sector.

Foot and nail care

Due to the wide range of infection possibilities in sanitary facilities and the warm and humid environment between the toes, mycoses occur time and again, which are treated dermatologically with the usual antimycotics. In older people in particular, there is a risk that the fungal infection will spread to under the toenails, where it is difficult and time-consuming to reach.

For prevention, it is therefore advisable to apply a preparation containing terbinafine, for example, intensively under the nail tips about once a week after cleaning the skin. Appropriately trained carers will also cut the nails and look out for rhagades on the hands and feet.

Rhagades can be a side effect of medication, such as hormone preparations and corticoids, in addition to local overuse. In these cases, the

cosmetics used may contain astringent witch hazel extract or epigallocatechin gallate (EGCG). Among other things, EGCG regulates the protein kinase inhibitor p57, which controls the formation of keratins and filaggrins. Inflammatory skin cracks can also occur on the lips (cheilitis) and are treated similarly there. Stronger adhesive preparations containing 12-hydroxystearic acid esters are an option here.

Hand-foot syndrome

The so-called hand-foot syndrome is a side effect of chemotherapy. It is characterised by swelling, redness and scaling on the palms of the hands and undersides of the feet. Cosmetically, attempts can be made to counteract the symptoms with tranexamic acid, native phosphatidylcholine (contains bound essential fatty acids), phosphatidylserine and vitamin B₆.

Diabetic foot

It is more difficult with diabetic feet. In this case, cosmetic products can only be used preventatively or on acutely open areas once the wound is no longer oozing. Lipid-rich oleogels have a tension-reducing effect. However, lipids alone are not sufficient. Additional moisturising films of long-chain hyaluronic acid together with N-acetyl-glucosamine as well as anti-inflammatory substances in the form of protease inhibitors (boswellic acids) and regenerating phosphatidylserine help adjuvantly in drug treatment.

Create feel-good moments

Instead of or in addition to the skin cleansing described above, baths or partial baths can be used, which naturally must not irritate or leach out the skin. On the one hand, they provide moments of well-being, but on the other hand, with the right active ingredients, they are also useful for disease-related skin lesions and eczema. As with barrier-active skin care creams, the use of oil baths must be free of non-degradable synthetic emulsifiers.

In contrast to lamellar creams, it is possible to work with native phosphatidylcholine (PC) derived from plant cell membranes. PC-vegetable oil mixtures are dispersed in water and transport the lipids and active ingredients in the oil directly to the skin due to the high affinity of PC to keratin. The result is a fine, silky, nourishing film that remains on the skin after the bath.

Baths can be combined with aromatherapy for a sense of well-being. For sensitive people, the declarable potential allergens of the essential oils used should be noted using the INCI.

Inhibit itching

If itching is annoying, skincare creams can be enriched with physiological amides, which have additional effects in addition to inhibiting itching, as the following examples show:

- Urea and allantoin increase skin moisture
- D-panthenol (provitamin B₅) has a cell proliferative effect
- Palmitic acid monoethanolamide is an endocannabinoid skin protectant
- Niacinamide (vitamin B₃) has a regenerative effect
- Ceramides are barrier-active
- Avenanthramides are found in oat extracts and have an antioxidant effect

Open wounds

A final but important topic is open wounds, such as those that occur in terminal breast cancer. Although they are re-dressed daily, the necrosis of the tissue means that they quickly give off a foul odour that can be detected even in small concentrations. In this case, suitable odour-masking fragrances are required under clothing, possibly combined with a deodorant effect.

Dr Hans Lautenschläger