CORRESPONDENCE

Evaluation of Absorbent Versus Conventional Wound Dressing

A Randomized Controlled Study in Orthopedic Surgery

by Dr. med. Jan Bredow, Katharina Hoffmann, Dr. med. Johannes Oppermann, Prof. Dr. rer. medic. Martin Hellmich, Dipl.-Math., Prof. Dr. med. Peer Eysel, and Dr. med. Kourosh Zarghooni in issue 13/2018

Consider the Adhesives of Wound Dressings

Bredow et al. in their original article compare “absorbent” versus “conventional” wound dressings used postoperatively after orthopedic surgery (1). They describe that patients, nurses, and physicians were “more satisfied” with the absorbent dressings and estimated that these were “better.” Crucial points of these subjective assessments were greater wearing comfort and lower degrees of trauma when changing dressings, which are primarily due to the adhesives used, not the higher degree of absorptiveness (2). Mepilex Border Post-Op has a silicone coating; Cosmopor E uses polyacrylate adhesive. It has been shown on several occasions that the removal of silicone-coated dressings is associated with notably less pain than the removal of dressings that use other adhesives. This reduced sensation of pain does, however, directly correlate with a lower degree of adhesiveness on the skin (2). If the dressings used in this setting really remained adhesive for up to a week and did not loosen spontaneously (which is a commonly observed problem in clinical practice) then the authors are correct to conclude: “the absorbent adhesive dressing is significantly superior to today’s standard dressing.” However, a causally relevant aspect that is of central importance but was not discussed in the article, is the fact that different dressings use different adhesives. For this reason, the presented results should not be generalized just like that to other “absorbent” dressings, because commercial products feature very different adhesives (2, 3). Exudate management (4) is important after primary closure of postoperative wounds, but what is of central importance for pain, traumatization, and satisfaction of medical professionals and patients is the selection and use of the appropriate adhesive dressing.

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Conflict of interest statement

Prof Dissemmond received consultancy fees from Braun, Coloplast, Convatec, Lohmann&Rauscher, Mölnlycke, Hartmann, and Urgo. He received co-author payments from Lohmann&Rauscher and Hartmann. He was reimbursed for conference delegate fees as well as travel and accommodation expenses by Lohmann&Rauscher, Coloplast, and Urgo. He was paid for preparing scientific advanced training courses by 4M, B. Braun, BSN, Coloplast, Engelhard, Hartmann, Lohmann&Rauscher, Mölnlycke, SastoMed, and Urgo. He received funding for clinical studies from Urgo.

Lukewarm Tap Water

The epithelialization phase of wound healing is completed 48 hours after an operation—if the wound edges are adapted in the correct manner. Postoperative wound infections are caused by pathogens that penetrate into the deep tissue during the procedure; such pathogens do not reach deep tissues by any secondary route. This means that showering is feasible as early as 48 hours after surgery.

The incidence of blistering owing to wound dressings is 15–35%. This prompts the question of whether dressings after surgery should not be omitted altogether, while covering the wound loosely with a gauze pad/gauze strip. This makes clinical monitoring easier as far as infections or postoperative hemorrhage is concerned.

What follows is based on clinical experience in obstetric medicine at two university hospitals over 35 years: birth-related injuries and tears in the vulval and vaginal area are located close to the anus. If the anal sphincter is damaged, the content of the colon will penetrate into the tears. The conditions around the wounds will make optimal adaptation of the wound edges difficult. After often long-term wound care, it is not possible to cover this area because of its anatomical location. In spite of all this, such wounds usually heal without any problem—even in the absence of antibiotic treatment.

Local wound care consists of irrigation using lukewarm tap water from the public water supply. The latter is well-controlled in Germany, which obviates having to boil the water first.

After cesarean section—which today is the delivery mode in one in every three women—the incision edges can be optimally adapted and the abdominal wall can be optimally disinfected before the procedure—in women who as a rule are young and healthy. In this

setting, it is usually sufficient to loosely cover the wound with a gauze pad, which covers the entire wound area, for 24 and 48 hours. Discharge from hospital follows three days later.

In conclusion: the above approach is patient oriented and cost effective. By contrast, commercial wound care concepts/products are expensive. Comparative studies are needed. DOI: 10.3238/arztebl.2018.0427b

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The author declares that no conflict of interest exists.

In Reply:

Professor Dissemond is correct in that neither the study nor the discussion focused on adhesives. For this reason, the conclusion should not be generalized to all “absorbent” wound dressings. In future studies, the adhesives of wound dressings should certainly be considered.

Professor Wenderlein prompts us to mention that we actually discussed such postoperative wound treatments in our study group. But the basic requirement for such an approach would be a fundamental re-think on the part of patients and doctors. For example, in order to gain ethics approval for such a comparative study, valid arguments would be required—ideally based on comparative studies with a high evidence level. But these studies have not been conducted to date. We agree unreservedly with his conclusion. DOI: 10.3238/arztebl.2018.0428

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CLINICAL SNAPSHOT

Tuberculosis Cutis Luposa (Lupus Vulgaris)

An 83-year-old man complained of lessened performance ability, weight loss, and febrile episodes of several months' duration. A painful area of partly indurated and squamous erythema with an irregular border was seen on his right arm. Skin biopsy and histopathological examination revealed granulomatous inflammation with focal necroses; a suspected mycobacterial infection could not, at first, be confirmed either by microscopy (Ziehl-Neelsen stain) or by molecular genetic testing. Nonetheless, because the patient had suffered from tuberculosis of the lymph nodes three years before, he was given standard anti-tubercular treatment. The cutaneous and general symptoms improved within one week, and the diagnosis was confirmed four weeks after presentation when a fluid culture turned positive for *Mycobacterium tuberculosis*.

Lupus vulgaris, the most common type of cutaneous tuberculosis (a rare condition in low-incidence countries), is due to post-primary hematogenous seeding of the skin with mycobacteria. The skin changes are generally not contagious and may display psoriasiform scales as a secondary efflorescence (lupus vulgaris

exfoliatus). The treatment corresponds to that of pulmonary tuberculosis; as long as no drug resistance is present, it consists of isoniazid, rifampicin, pyrazinamide, and ethambutol for two months, followed by isoniazid and rifampicin for four months.

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