millenium

Millenium, 2(ed espec. nº10), 9-11.

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UMA BREVE HISTÓRIA DA EVOLUÇÃO DO TRATAMENTO DE FERIDAS
A BRIEF HISTORY OF THE EVOLUTION OF WOUND CARE
BREVE HISTORIA DE LA EVOLUCIÓN DEL CUIDADO DE LAS HERIDAS

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RECEIVED: 03th June, 2022
ACCEPTED: 03th June, 2022

Santos, E. & Cunha, M. (2022).
Editorial - A brief history of the evolution of wound care. *Millenium*, 2(ed espec nº10) 9-11.
DOI: https://doi.org/10.29352/mill0210e.27313

EDITORIAL

The use of dressing material and the options in wound management and treatment are far from a recent reality as they date back to antiquity (Shah, 2011; Jones, 2015). Several Egyptian manuscripts dating back to 3000-2500 BC already mentioned dressings based on honey, grease, linen threads, bandages, and various types of excreta (Queen et al., 2004; Shah, 2011; Jones, 2015).

Hippocrates (400 BC) recommended that wounds should be cleansed and dried. Cleansing with warm water, wine and vinegar was a common practice (Elias et al., 2009; Afonso et al., 2014).

Around 1860 the process of removing oil from cotton wool was discovered, making it absorbable - still widely used today. The focus was centred on the use of antiseptics and topical agents with antimicrobial action and the protection with dry covers (Elias et al., 2009; Afonso et al., 2014). Later, Dakin's solute reached its peak during World War I (McCullough, & Carlson, 2014), and iodine, mercury and aluminium derivatives were also used. Pasteur's discoveries (1861) led to the development of the "Theory of Germs", which improved our knowledge on infection and generalised the term vaccination (Cavaillon, & Legout, 2022).

Until the end of World War II, it was considered that a dry environment provided better conditions for healing, and, therefore, topical agents that caused the wound bed to dry out were developed, basically using dry gauze.

In 1962, it was demonstrated that the epithelialisation rate was 50% faster in a moist environment and that crust formation was minimised, thus proposing the so-called "moist wound healing theory". From this moment on, the development of research in wound care materials was emancipated, with new resources, and a true "revolution in the concept of dressings" occurred (Winter, 1962).

The clinical benefits of moist wound healing include, for example, promoting a physiological environment conducive to faster healing, promoting autolytic debridement of the wound, preventing dehydration, necrosis and crusting that delay healing, minimizing pain and trauma during dressing change, reducing the risk of adherence of the dressing to the wound bed, and improving the quality of life of the person (Elias et al., 2009; Afonso et al., 2014).

It was not until 1970 that the transparent, vapour permeable film was introduced for the first time and its beneficial effect described (Queen et al., 2004). In 1982 hydrocolloids appeared, followed by hydrogels. In the early 1990's hydropolymers/ polyurethanes appeared which, besides keeping the medium moist, allowed a better management of exudate (Queen et al., 2004).

It was also in 1982 that the seven characteristics of the "ideal dressing" were set out: 1) Maintain moisture at the wound/pen interface; 2) Remove excess exudate; 3) Allow for gas exchange; 4) Maintain the temperature of the wound bed at 37º C; 5) Be impermeable to bacteria; 6) Be free of particles or toxic contaminants; and 7) Allow for removal without trauma (Elias et al., 2009; Afonso et al., 2014).

Associated to the evolution of the increase of knowledge about the healing process the dressing material continued to develop. Today, these characteristics are associated with others, such as controlling bleeding, eliminating devitalised tissue, maintaining a pH of 6.1, promoting granulation tissue formation and facilitating epithelialisation, being flexible and adjusting to any area of the body, being hypoallergenic, easy to apply, comfortable for the person, not requiring frequent changes, and being cost-effective (Elias et al., 2009; Afonso et al., 2014).

A very marked evolution in the last 25 years leads us to recognise that, although there is no "universal dressing", there is a very diverse range of materials, which requires professionals to know their specificities. We have as examples: hydrocolloids, hydrogels, charcoal with and without silver, alginates with and without silver, hydrofibres with and without silver, hydroalginates with silver, collagenase, slow release iodine, various foams with and without silver, polyhexanide and betaine, polyacrylate, honey, protease modulators, hyperoxygenated fatty acids, films, jelly dressings, bacteria adsorbent pads, silicone, hyaluronic acid, collagen, bioceramics, maltodextrin, barrier products, among many others...

The current state of wound management and treatment combines the multidisciplinarity of medical sciences, bioengineering, and technology, and has imposed on health professionals dedicated to this area the need for differentiated knowledge and skills (Queen et al., 2004; Jones, 2015). In some settings and countries, this area is even a recognised specialty.

Finally, and despite this significant evolution, it is essential to understand the historical aspects of wound treatment so that we can anticipate progress and point out future paths.

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