

Common skin pathology in LE prosthesis users

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Abstract

In the United States, 7% of all outpatient ambulatory visits are for dermatologic complaints.¹ Lower extremity (LE) prosthesis users experience a higher incidence of such problems because of the skin-prosthesis interface. Plastic, silicone, or some other inorganic material is placed in direct, constant contact with the skin, predisposing the residual limb (RL) to a myriad of cutaneous pathology. In addition to compromised vascular and lymphatic circulation, comorbidities such as diabetes and peripheral vascular disease (PVD) are common among LE prosthesis users. Diabetes, for example, is approximately 9 times more prevalent in LE amputees than nonamputees.² Sensory deficit, pain, healing, RL volume, prosthetic environment, and fit affect cutaneous hygiene for the LE prosthesis user. For this project, 261 patient encounters that occurred during a 12-week period were reviewed. Of these, 30 patient visits involved some type of skin-related problem in a patient who used a LE prosthesis. In our patients, the six most common diagnoses were pressure sores, infection, irritant contact dermatitis, negative pressure hyperemia, intertrigo, and xerosis. All the participants were LE amputees who functionally wore and used a prosthesis. History, diagnosis, management, timeframes, and clinical outcomes were followed.

Conclusion

More than 11% of the prosthetic encounters that occurred during this 12-week period involved some form of dermatologic problem, an increase of 63% compared to the skin problems Stern and colleagues reported in the general population. ¹ Not surprisingly, prosthesis users will be burdened at some point with skin issues because of the nature of the interface between the skin and the prosthetic socket. This being the case, all health care providers with amputee patients who use prostheses should have a basic knowledge of the common dermatologic ailments associated with prosthesis use. In most of our cases, conservative treatment produced successful outcomes. Because most cases of skin pathology in amputees are medically complex, collaboration between disciplines is routinely necessary. Comorbidities related to diabetes, PVD, and other pathologies affecting cardiac and neurologic status can easily warrant consultation with other medical specialists. The most obvious collaboration here was between dermatologic clinicians and prosthesis specialists.

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