

Bioelectrical Impedance Assessment of Wound Healing

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Abstract

Objective assessment of wound healing is fundamental to evaluate therapeutic and nutritional interventions and to identify complications. Despite availability of many techniques to monitor wounds, there is a need for a safe, practical, accurate, and effective method. A new method is localized bioelectrical impedance analysis (BIA) that noninvasively provides information describing cellular changes that occur during healing and signal complications to wound healing. This article describes the theory and application of localized BIA and provides examples of its use among patients with lower leg wounds. This promising method may afford clinicians a novel technique for routine monitoring of interventions and surveillance of wounds.

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Abbreviations: (AC) alternating current, (BIA) bioelectrical impedance analysis, (ECF) extracellular fluid, (MRSA) methicillin-resistant *Staphylococcus aureus*, (PA) phase angle, (R) resistance, (Xc) reactance

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