

Integument Hydration for NMSC Therapy

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The application of FIR (far infrared energy) or NIR (near infrared energy) modalities in preparation for the application of NMSC (nerve and muscle stimulating current) therapy is an instance in which there may be clinical legitimacy in the use of multiple modalities for synergistic purposes.

NMSC functions by the electromotive movement of electrolytes, cations, and anions relative to an excitable membrane in response to an applied stimulus as proposed by Melzack & Wall in 1965. Since the principle source of these solutes, as well as the solvent (water), is the blood stream, by increasing the blood flow in these tissues as a result of the addition of FIR, or NIR, wavelengths, the respective tissues are hydrated. Also, the application of these energy forms results in the elaboration of histamine, a potent vasodilator, which enhances the tissues hydration effect.

The resultant increase in tissue hydration enhances the clinical response of tissues to NMSC application. There are other instances of synergistic multiple modality application and all are based on the same biophysical theorem.

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