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Longitudinal Elastic Textile Compression Appears to Prevent Skin Tears in Patients with Senile Skin at Risk for Shear Injury; Control of Edema is the Probable Mechanism

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Clinical Problem

Skin tears, due to shear, in institutionalized octogenarians with senile skin occur in 1.5 million Americans annually.^{1,2} We are testing preliminary protocols to prevent skin shear injury using an inexpensive longitudinal elastic compression stockinet* to replace past management protocols calling for expensive skin protection textiles including gauntlets, TED hose and ACE wraps.³

Current Approach

Fuzzy wale longitudinal elastic compression stockinet, developed at the University of Nebraska, has been extensively studied for control of edema in subcutaneous fat, the treatment of venous leg ulcers, and to stabilize and compress split thickness skin grafts and large skin flaps after shear injury.^{4,5} Experience with elastic compression led us to ask, Does fuzzy wale elastic compression, by protocol, prevent shear injury in at risk senile skin?

Results

Preliminary observations to date with ad hoc elastic compression protocols for inpatient, rehab and chronic care patients appear promising to prevent shear injury in at risk senile skin. Photographs document: 1. the effectiveness of compression stockinet in treating skin flaps created by shear injury, 2. improvement in the appearance and 'strength' of senile skin after months of elastic fuzzy wale compression, and 3. control of skin edema by fuzzy wale compression.

Conclusion

Fuzzy wale longitudinal elastic compression protocols for inpatient, rehab and chronic care patients appear promising and inexpensive to prevent shear injury in at risk senile skin. Control of edema and patient compliance may be important. Formal research is indicated.

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