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Undercasts in Fracture Care: A Randomized Control Study

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Abstract : There is currently no literature comparing undercasts in fracture care. This study is a randomised trial comparing the 4 commonly used undercasts in Australia. These are Webril, Sofban, Goretech and Delta-dry. The ideal undercast should be comfortable for the patient and not cause itchiness. It should be durable enough to withstand daily activities. The clinician/technician should find the undercast easy to apply and remove. It should provide adequate padding without compromising cast mouldability to obtain a good cast index and air index. 18 volunteering medical students were randomly allocated to receive 4 angular casts, one over each elbow and ankle(total of 72 casts). They were blinded to cast type. After an hour their casts were stressed by pouring 20ml Normal Saline onto the skin beneath. Each student filled a questionnaire about comfort, itchiness, weight and water resistance. Subsequently they ranked each cast 1 to 4 based on preference. Our preliminary results show Delta-dry is the most preferred undercast followed by Webril, Sofban and Goretech in that order. Underlay selection is important component of patient care with long immobilsation. Webril or Deltra-dry are by far the most preferred undercasts in our study.

Keywords: casts, fracture, treatment modality, patient compliance

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