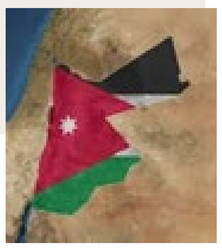
Expanding Arm Skin Helps Restore Comfort and Confidence After Neck Contractures

OPTIMIZING NECK CONTRACTURE RELEASE: SUPERIOR AESTHETIC AND FUNCTIONAL OUTCOMES WITH ARM DERIVED FULL THICKNESS SKIN GRAFT USING TISSUE EXPANDER.

Background: The Amman Reconstructive Surgery Program treats complex war-related injuries, including burn neck contractures. Traditional skin graft sites are often too small for large defects, so our study explores a new approach using expanded arm skin to achieve better outcomes.



A thirteen-year-old girl with post-burn neck contracture

330ml tissue expander

Arm tissue expander

Case description and Conclusion

A thirteen-year-old girl with recurrent post-burn neck contractures after failed grafts was treated using a 330-mL inner-arm tissue expander, which allowed harvest of a 35% larger full-thickness skin graft (12 × 8 cm). The graft provided good color match, pliability, and minimal postoperative contracture, supported by a transparent 3-D printed orthosis. Arm-derived full-thickness skin grafts after expansion proved superior to traditional grafting, with better aesthetic match and lower recurrence. Combined with rehabilitation, this approach optimizes function, appearance, and overall quality of life.

Good color match, pliability, and minimal postoperative contracture after taking full thickness skin graft from her Arm

Part of the rehabilitation phase : Transparent Facial Orthosis

Limitations: The findings are based on a single case, which limits generalizability to broader patient populations. Longer follow-up and comparative studies are needed to confirm durability and outcomes.

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PAEDIATRIC DAYS AMMAN 2025