SKIN BANKING AND HOMOLOGOUS SKIN TISSUE USE IN BURNS. (122)

*Vigato E.¹, Dalla Pozza E.¹, Caputo G. G.¹, Governa M.¹

¹ A.O.U.I. Verona, Plastic Surgery and Burn Centre, Verona, Italy

Introduction: The value of homologous skin allograft in burnt patients is well known. The Authors describe the experience of Verona’s Burn Centre, in collaboration with the Regional Tissue Bank, in the clinical use of cryopreserved skin in burns.

Methods and Results: From April 2004 to December 2014 Verona’s Skin Bank collected, validated, processed and cryopreserved more than 1,500,000 cm² of skin from more than 450 cadaveric donors. Harvested skin was negative for microbiological tests.

In our study 506 patients (334 adult - average 53.3y - and 172 paediatric - average 3y) received homologous skin grafts. TBSA was > 25% in 182/506 patients, and < 25% in 324/506. Only 20/506 (4%) died for complications. In all these cases TBSA was > 40% and median age of 70 years. In the survival group, 277/486 patients (57%) underwent to one or more surgical treatments (average 1.4), while 209/486 (43%) healed without surgery. The hospitalisation was respectively 42 days (TBSA >25%) and 14 days (TBSA <25%) in adult, and respectively 25.6 days (TBSA >25%) and 12.3 days (TBSA <25%) in paediatric patients.

Discussion and Conclusion: In both adult and paediatric, use of homologous skin graft is a well known procedure to promote reepithelization in superficial burns, reducing pain, risk of infections and fluid loss. In deeper lesions homologous skin grafts can be utilized after necrectomy debridment for a temporary cover to prepare the wound bed before autologous grafting. No side effects nor adverse reactions in long term follow up were observed.