ARE THE EARLY EXCISION AND GRAFTING MORE EFFECTIVE THAN DELAYED EXCISION AND GRAFTING ON THE RETURN OF THE BURNED HAND FUNCTION? A PROSPECTIVE COMPARATIVE COHORT STUDY (204)

*Fatemi M. J.¹, Salehi S. H.¹, Sedghi M.¹, Akbari H.¹, farrokh forghani S.¹, Niazi M.¹

¹ Burn research center of Iran university of medical science, Tehran, Islamic Republic Of Iran

Introduction: Mismanagement of deep hand burns causes serious hand dysfunction. The impact of hand disability to do daily living activities is so significant that it would lead to reduce quality of victims’ life. Despite a general consensus regarding the impacts of burned hand early excision and grafting (EE&G) on the reducing of treatment cost and hospital stay, there are some controversial about its effect on the outcome of hand function. This Study conducted to compare the results of EE&G and delayed skin grafting in deep hand burns regarding the hand functional outcome.

Materials and method: This prospective comparative cohort study was conducted from April 2012 to November 2013 in 60 patients with deep thermal burns of the dorsal hand and means TBSA less than 20% who were admitted to Motahari Burn Hospital in Iran. Based on the patients’ conditions, necessary procedures (EE&G or more conservative treatment) were performed and then these patients were placed into early excision group (No=30) and delayed excision group (No=30). Except the operation time after injury the pre and post-operative standard treatment protocols were same in both groups. Six months after grafting the measurements of total active motion of fingers (TAM), grip strength of the hand and the assessment of Disabilities of the Arm, Shoulder and Hand (DASH) questionnaire were performed in all patients to evaluate hand functional outcome.

Results: There weren’t significant differences between two groups regarding the number of patients, gender distribution, mean age, dominant hand involvement distribution and the average percentage of TBSA. The TAM, Grip strength and also DASH scores were significantly better in EE and G group than delayed conservative management group.

Conclusion: The present study clearly demonstrated that early excision and grafting with proper physical therapy and rehabilitation management, provides the best functional outcome in deep burned hand.