

Oral Presentation

Management of Postburn Contracture in General Hospital Soebandi-Jember

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Abstract

Background: Postburn contracture cause functional limitations and also creating cosmetic defect. Surgical reconstruction is procedure to treat this abnormality. **Methods:** The author present a retrospective study, own experience in surgical treatment in 11 cases with postburn reconstruction procedure in the period April 2014- April 2015.

Results: The age of patients was between 1 to 15 years old. The etiology of burn included scald, flame, thermal and electric injury. The single anatomical site of the body the most frequently involved was fingers 40% and knee 20% , and followed of the multiple site of the body 40%. All of the cases in this study were performed with incisional contracture release and skin grafting.

Conclusion: We concluded that skin grafting as postburn contracture operative method showed patient satisfaction in cosmetic as well as functional outcome.

Keyword: *postburn, contracture, release and skin grafting*

Background

Post-burn sequel can severely disrupt quality of life, physical and psychological deformities such as joint contractures and cosmetic defect.¹ These deformities also affect the vocational and socioeconomic status of patient.² The best treatment for the sequel is to avoid the burn accident. Fast and effective aid and appropriate initial management are essential parts of burn therapy.¹

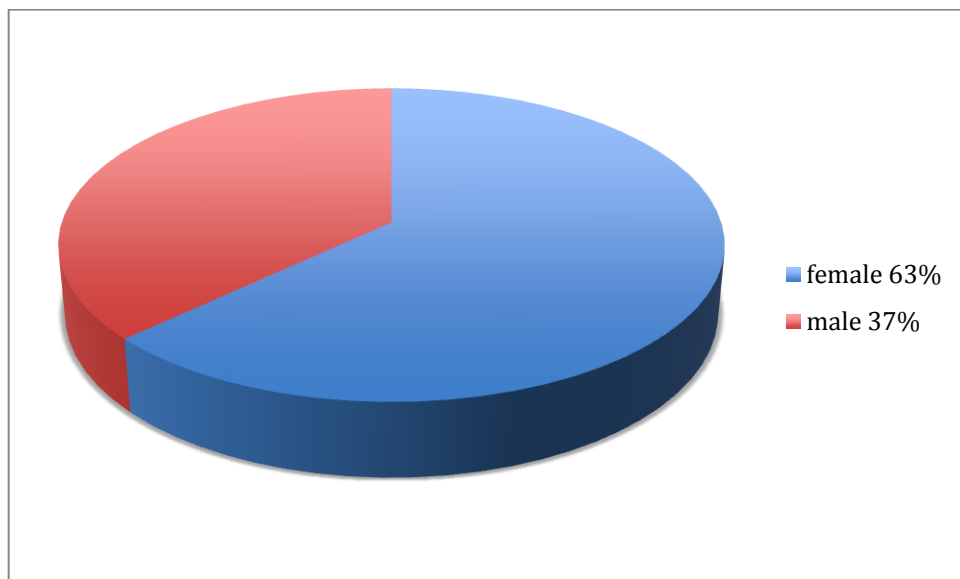
A review of options managing post-burn contracture in burn unit of developing country is presented with various options and complications following each of the option.³ The most common treatment methods are based on the incisional contracture release. Skin Grafting or flap must be harvested to cover subcutaneous tissue in the that were exposed by release.⁴ This paper described distribution type of burn contractures and skin grafting as the most surgical technique for treatment every type.

Methode

The author present a retrospective study, own experience in surgical treatment in 11 cases with postburn reconstruction procedure in the period April 2014- April 2015. Data was collected, compiled and analyzed according to the patient's age, sex, the frequency and distribution of burn contracture per patient .

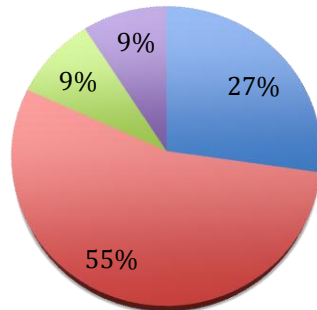
Results

A total of 11 patients qualified for this chart review. These patient came from surrounding distric of Jember region. The age of patients was between 1 to 15 years old. The presentage of male and female patients were 63% female and 37% male (see figure 1.) The etiology of burn included scald (27%), flame(55%), thermal (9%) and electric injury(9%) (see figure 2). The area of body to develop burn contracture divided into two type ie single and multiple anatomical site. The single anatomical site of the body the most frequently involved was fingers 40% and knee 20% and followed of the multiple site of the body 40% (see figure 3 & 4). All of the cases in this study were performed with incisional contracture release and skin grafting.



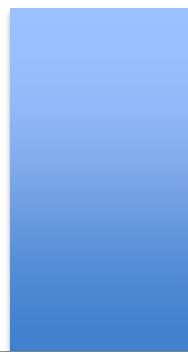
Etiology of burn

■ scald ■ Flame ■ Thermal ■ Electric injury



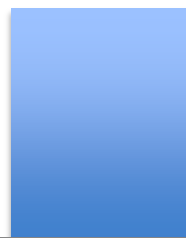
Anatomical site of Contracture

60%



Single anatomical site 60%

40%



Multiple anatomical site 40%

Single anatomical site

- finger of hand
- knee

multiple anatomical site

- elbow
- finger of hand and foot
- knee



Figure 1 Single site anatomical contracture at right inferior extremity



Figure 2 Two site anatomical contracture

Discussion

The chosen method in reconstructive principle should be the simple method to obtain the optimal results. Skin graft and local advancement (Z plasty) or combination are all used to release burn contracture. Phalangeal Joint contracture of hand:

- Z plasty & Full thickness skin grafting was appropriate
- When tendons are exposed, local flap is best choice (cross finger flap, dorsal metacarpal artery)

Knee joint contracture :

- Knee scar contractures need to be reconstructed as early as possible to improve the loss of a patient's activity and prevent kyphosis development
- Incisional or excisional release and skin grafting is frequently the first line therapy with excellent long term results

Conclusion

The first step to treat contracture is making adequate contracture release. Z plasty & skin grafting as postburn contracture operative method showed safe, simple, effective & patient satisfaction in cosmetic as well as functional outcome.