

Matareya Teaching Hospital Scoring System: For Evaluation of the Burned Face

HAMDY BASHA, M.D.

The Department of Plastic Surgery, Matareya Teaching Hospital, Cairo.

ABSTRACT

Since, 1999, 8 cases of post burn deformities of the face were subjected to preoperative evaluation. The same scoring system was used in the post operative period to evaluate the results gained. To our knowledge none suggested this scoring system before. So, we gave ourselves the right to call it Matareya Teaching Hospital Scoring system (MTHS). We hope that this system of scoring would give the accurate idea about this problem and its ways of management. The scoring system and the results were discussed.

INTRODUCTION

The main problem met with, was the inaccurate evaluation of the patient during the preoperative preparation [4]. Burned face deformities were not as simple as that to put the words bad and very bad in the evaluation process [1-4]. Also, it was not enough as regard the postoperative results, to use the words bad, good, very good and excellent for its results. We could not depend on variables in both situations to suggest a strategy for these lesions. We tried hard to criticize ourselves to find the way for this accurate evaluation scoring system [4]. During searching about this system we found that according to the goals which were asked by the patient, the strategy must be wise enough to have tactics and steps that provide some of it. Most complicated burned face patients, always asked for normal face again. A dream, for them and also for plastic surgeons. But Most of mankind dreams became true after proper and scientific thought.

Also, we hope that, we may find this accurate system which illuminates the way to proper management, and to provide honest description to the patient about what was happened, what is going on and what will be gained?.

MATERIAL AND METHODS

We used this scoring system in 8 cases of post burn complications of the face. Preoperative analysis was presented as followed:

- 1- Ulcer: Present = 1, not present = 0
- 2- Contracture: Present = 1, not present = 0
- 3- Hyperpigmentation: Present = 1, not present = 0
- 4- Keloid or hypertrophic scar: Present = 1, not present = 0
- 5- Texture of skin: Abnormal = 1, normal = 0
- 6- Appearance: Abnormal = 1, normal = 0

For a normal individual without burned face lesions, the scoring, of course, will be=0. But the complicated burned face with all the above mentioned lesions will have a scoring of 6/6 (Fig. 1). In this work, the scoring ranged between 3/6 : 6/6 with an average of 4.75/6.

For these lesions, we used the full thickness skin graft to resurface the defect after it had been excised. The surface area ranged from 252cm²: 80cm² with an average of 166cm². The use of nutrition solution made of 1:1 Ringer and glucose 5% with its equivalent amount of insulin during the operative and postoperative periods improved the full thickness skin graft survival. The patient's age ranged from 7:45 years with an average of 26 years.

Postoperative scoring ranged from 4/6:1/6 with an average of 2.16/6. Late postoperative follow-up revealed marked changes in texture and color of the graft to the positive side.

Scoring: Ulcer contract. Keloid pigem. Text. Appear.

Patient no.1:	Pre :	1	1	1	1	1	1
	Post:	0	0.5	0	0.5	0.5	0.5
Patient no.2:	Pre :	0	0	1	1	1	1
	Post:	0	0	0	0.5	1	0.5
Patient no.3:	Pre :	1	1	1	1	1	1
	Post:	0	0.5	0	1	0.5	0.5
Patient no.4:	Pre :	0	0	1	1	1	1
	Post:	0	0	0	0	0.5	0.5
Patient no.5:	Pre :	0	1	1	1	1	1
	Post:	0	0.5	0	0.5	0	0.5
Patient no.6:	Pre :	0	1	1	1	1	1
	Post:	0	0.5	0	0.5	0.5	0.5
Patient no.7:	Pre :	0	0	0	1	1	1
	Post:	0	0	0	0.5	0	0.5
Patient no.8:	Pre :	0	1	1	1	1	1
	Post:	0	0	0	0.5	0.5	0.5

RESULTS

As regard the scoring system the results were as followed:

Preoperative postoperative amount of change percent of change:

No.1	6/6	2/6	4/6	66.66%
No.2	4/6	2/6	2/6	33.33%
No.3	6/6	2/6	4/6	66.66%
No.4	4/6	1/6	3/6	50.00%
No.5	5/6	1.5/6	3.5/6	58.33%
No.6	5/6	2/6	3/6	50.00%
No.7	3/6	1/6	2/6	33.33%
No.8	5/6	1.5/6	3.5/6	58.33%

The average preoperative scoring was 4.75/6 (79.16%) and the average postoperative scoring was 2.16/6 (36%). The average amount of change was 3.125/6 (52.08%) and the average percent of change was 52.08%.

As regard the graft survival and graft take, the percentage was: 80% in 4 cases, 60% in 3 cases and 50% in one case. Haematoma occurred in all cases and was the probable cause of the lost parts. Fig. (1) showed preoperative lesions of patient no.1 in which the scoring was 6/6. Fig. (2) showed the same patient in late postoperative view after 6 months with a scoring of 2/6.



Fig. (1): Preoperative view of postburn face complications.



Fig. (2): Postoperative view after excision and full thickness graft resurfacing.

DISCUSSION

It is a basic question after suggesting certain procedure to a certain lesion, is it competent? To answer this question, we have to evaluate the results in an accurate way. The numerical evaluation to any results would give rise to this accuracy. The scoring system which was used in this work gave an accurate idea about the lesion and its components as well as it gave an accurate idea about the outcome gained. As regard the results achieved, the average percentage of success was 52.08% as it ranged between 66.66% and 33.33%. We considered this 52.08% as an indicator for increased possibility to overcome the obstacles presented [4].

These obstacles were unmatched skin graft color with the surrounding normal skin, although it had been improved in the late postoperative period. The second obstacle was the presence of scar between the grafted area and the normal skin. The third one was the large surface area present when we were dealing with total face deformities [4].

We could not consider the concept of static units of the face while we planning for reconstruction, as it would increase the number of scars [4].

In other works, the use of words bad, good, very good and excellent were not enough to evaluate the outcome gained; these words are very relative and we could not have accurate evaluate of the results according to it [1,2,3]. If the evaluation process depends on how much do we eliminate the lesions, this may give a hope to modify and develop the procedures that could be competent. We hope that the scoring system which was suggested in this work will be subjected to evaluation by the other plastic surgeons and to be subjected to more studies to realize it is value.

Conclusion:

We concluded that the use of Matareya teaching hospital scoring system (MTHS) for burned face complications is a valuable one in determining the amount of lesions presented. Also, it gives an

accurate value about the results gained. It has an effect on the strategy, the tactics and the procedures to find out are they reliable or not?

We also concluded that the use of full thickness skin graft with or without expansion of the donor site improved the results as regard resurfacing the face skin deformities after burn.

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