

Harvesting split thickness skin in areas of scarcity.

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Background: In the third world countries like Ethiopia the majority of Hospitals have difficulties in harvesting split thickness skin for graft because the proper Humby knife may not be available and where available may be too old and out of use. In order to circumvent such a problem the author had to use the easily available and cheap instrument, the razorblade. The aim of this study was to evaluate the outcome split thickness skin graft harvested using sterile razor blade in an areas of scarcity.

Methods: A retrograde study of 108 patients who had split thickness skin graft done using a razorblade as harvester from August 1999 to March 2005 at Menilik ii Hospital. Fifty-one (47%) of patients were male and 57 (53%) were female giving a Male: Female ratio of 1:1.12. The ages ranged from 9 to 80 years with a mean age of 30.82 years. All patients had split thickness skin graft done by using a razorblade as harvester

Results: The harvests were adequate in quantity and quality to cover the desired areas to be covered. The grafts were well taken by the recipient areas and technically there was no danger of deep bite.

Conclusion: Split thickness skin can be harvested using sterile razorblade in areas of scarcity.

Introduction

In the third world countries like Ethiopia poverty, and lack of attention to the health problem makes impossible to full fill the facilities of hospitals especially of operation instruments like Humby knife for harvesting of skin for graft. Since this instrument is very expensive and not available in domestic markets, there is always a tendency of waiting for donations to meet the hospital needs. Thus we need to improvise and use appropriate technology by locally available instruments. I try to avoid this problem by using razorblade and helped a lot of patients.

Patient and Methods

Between August 1998 and March 2005 a total of one 108 split thickness skin graft done at Menilik ii hospital using razorblade as harvester. Out of which fifty-one were M(47%),and fifty-seven were F (53%), where the M:F was1:1.12. the mean age was30.82 with the range of 9-80 years. The etiological factors were analyzed, degloving injuries accounts sixty-four cases (59%),compound fractures and dislocations accounts for twenty-three cases(21%),post contracture release accounts ten cases(9%), post tumour resection accounts for three cases(3%) chronic leg ulcer accounts for two cases (2%), amputation stump accounts for two cases (2%), bed sore accounts one case (1%), miscellaneous soft tissue injuries accounts for three

cases(3%).For all of this patients split thickness skin graft done using razorblade as harvester.

Interpretation

The majority of patients are between 21 &40 years of age (55%). That means the most productive age group is affected. Females are more affected than males. The less number of patients seen between one and ten years of age is due to that there is no paediatric service in our hospital. Trauma accounts for the majority of the cases for skin graft, about eighty-seven cases (80.55%). Out of which degloving injuries accounts for the majority of the cases 64/108 (59.25%).

Technical description

All procedures were done under general anaesthesia and method of asepsis technique at major operation theatre. Patient in supine position sterile drapes applied on the body of the patient leaving a hole on the area of donor &recipient site. Then the area of the donor site is rubbed with furacin ointment, and then the assistant must apply tension to keep the skin tight by applying skin board. The blade held by straight forceps is applied to the skin at an angle of thirty degree and start harvesting in to and fro continuous movement then the harvested skin kept in saline solution until we get the desired size. Then skin is applied to the recipient site

and covered with sterile gauze and furacin ointment. The same is applied to recipient site.

Results

The amount of skin harvested was enough to cover the desired area. The homogeneous bleeding beneath the harvest confirms that the harvested skin is split thickness skin. There was no danger of deep bite and all the graft was well taken by the recipient.

Discussion

In third world countries like Ethiopia and in areas of scarcity split thickness skin for graft can be harvested by using a razorblade as an appropriate technology. The advantage of using this instrument is it is cheap and locally available, sterilizable, disposable, easy to perform, no danger of deep bite. Thus skin graft can be harvested by a razor blade in areas of scarcity.

Table 1. Age/Sex Distribution of Patients

Age	M	F	Total	%
1-10	1	-	1	1
11-20	11	15	26	24
21-30	20	20	40	37
31-40	8	11	19	18
41-50	5	4	9	8
51-60	4	5	9	8
61-70	-	2	2	2
71-80	2	-	2	2
Total	51	57	108	100

Table 2. Distribution of Patients by Aetiological Factors

Aetiological Factors	M	F	%
Degloving injury	30	34	59
Compound fractures and dislocation	13	10	21
Post contracture release	2	8	9
Post tumor resection	1	2	3
Miscellaneous soft tissue injury	2	1	3
Chronic leg ulcer	1	1	2
Bedsore	-	1	1
Amputation stump	2	-	2
Total	51	57	100

Reference

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