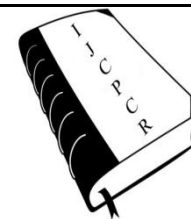




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EVALUATION OF EFFICACY OF SKIN GRAFTING IN IN ULCERS

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ABSTRACT

Skin grafts are used in places where sufficient skin is not available to close the ulcer. Males were found to be higher and leg was the common site. Skin grafting can be considered as standard treatment for ulcer.

Key words: Ulcers, Skin grafts, wound healing.

INTRODUCTION

Skin grafts are used to cover wounds where insufficient skin is available to permit immediate or delayed wound closure. Skin grafting delayed wound closure. Skin grafting has several advantages which includes providing normal function of the recipient form, decreased hospital stay, less hospital stay, less manpower and less expense to the patient. In this study skin grafting is the objective to be evaluated [1-6].

MATERIALS AND METHODS

The study aims to evaluate the efficacy of skin grafting in early wound healing, to study the percentage of graft in patients, to know the infection rate. Patients were examined and a questionnaire was prepared. Diagnosis was done based on clinical findings. It includes random blood sugar, blood urea, Serum creatinine, 'X' ray chest, ECG, hemoglobin percent, Hb, HBs and urine sugar. The cases were done under spinal and general anesthesia. Patients were assessed under anesthesia. Patients were assessed for infection, graft rejection, late complications like ulcer over the graft site [7-20].

Inclusion Criteria

- Admitted patients of both sexes of age group between 5

years and 75 years.

- Patients who gave consent for the procedure.

Table 1. Clinical examination

Clinical examination	Histopathology	
	Malignancy	Benign
Malignant	18	1
Benign	1	23
Inconclusive	5	9

Exclusion criteria

- Patients younger than 5 years and older than 75 years.
- Presence of infection.
- Patients unfit for surgery [21-29].

OBSERVATION AND RESULTS

The highest percentage was in the age group of 31-40- yrs and least was in less than 10yrs. Males were the highest percentage and Leg was the most common site for ulcer of this 38% of the ulcers was diagnosed to be healing ulcers. The most common duration of ulcer was 1-3 months 94% of the cases were done with a complete graft. 82% of the cases did not have any infections [30-36].

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Table 2. Age – Wise distribution

Age in years	Number	Percentage
≤ 10	3	6
11-20	7	14
21-30	9	18
31-40	13	26
41-50	12	26
51-60	3	6
61-70	3	6

Table 3. Site of ulcer

Site	Number	Percentage
Scalp	3	6
Face	3	6
Chest	3	6
Near	3	6
Hand	6	12
Thigh	6	12
Leg	14	28
Dorsal Foot	11	22
Plantar foot	1	2

Table 4. Diagnosis of ulcer

Diagnoses	Number	Percentage
Bed sores	1	2
Burns	7	14
Cellulites	1	2
Diabetic ulcer	4	8
Healing ulcer	19	38
Scar	3	6
Traumatic	13	26

Table 5. Associated Diseases

Disease	Number of cases	Percentage
Diabetes Mellitus	4	8
Hypertension	1	2
Nil	45	90

Table 6. Graft take

Graft take	Number	Percentage cases
Partial	3	6
Complete	47	94

Table 7. Infection rate

Inspection	Number of Cases	Percentage (y)
Nil	41	82
10%	6	12
20%	1	2
30%	1	2
40%	1	2

CONCLUSION

The split graft is a straight forward technique to learn without need for complete instrumentation overall test costs can be best to a minimum without comprising the

safety or long term success of the procedure. It is concluded that there is no age limit for skin grafting, it can be done for all age groups and is considered as standard for treatment of ulcers.

REFERENCES

1. Thomas Gibson, Ross Rudolph, Donald L. Ballantyne. Physical properties of skin and skin grafts” Chapter 7 and 8, in McCarty plastic surgery, Vol I, Edn I, W.B. Saunders Company, 1990, 207-275.
2. Henry Gray. The integument in Gray’s Anatomy, Chapter-I, En 37, Edited by Peter L. Williams and Mary Dyson, Churchill Livingstone, 1989, 70-95.
3. Richard S. Snell Introduction Chapter-I in “Snell’s clinical anatomy”, 7thEdn. Lipincott Williams and Wilkins, 2004, 1-4.
4. Last RJ. Introduction to regional anatomy. Chapter I in Last’s regional and applied anatomy. 10thEdn, Edt – Chummy S. Sinnatamby, Churchill Livingstone, 2000, 1-31.
5. Hongshik Han, Thomas A. Mustoe. Structure and function of the skin. Chapter 4, in Principles and techniques of general reconstructive surgery, Istedn, Vol 1, Edt – Bruce M. Achaver, Elof Erilasson, Bahman Gayuron, John J. Coloman III, Robert C. Russel, Craig A. Vander Wall, Mosby Publisher, 2000, 23-37.
6. Converse John Marquis, Joseph McCrathy, Reymond O Brauer and Donald C. Ballantyne Transplantation of skin graft’s and flaps. Chapter 6, in Reconstructive plastic surgery, 2ndEdn, Vol 1, Edit – John Morquis Converse, W.B. Saunders Company, 1977, 152-190.
7. Sir Harold Gillies and D. Ralph Millard. Technical tips and skin grafting, Chapter 4 and 5 in the principles and Art of plastic surgery, 1stedn, Vol 1, Little Brown and Company 1957, 72-102.
8. Cohen BE and Ciaravino ME. Gastronomies muscle and musculocutaneous flap, Chapter 448 in Garbb’s Encyclopedia of flaps, 2ndEdn, Vol 3, Edt – BerishStrauch, Luis O. Vasconez, Elizabeth J. Hall-Findley, Lippincott-Raven publishers, 1998, 1747-1754.
9. William F. Ganoug. Physiology of circulation, Chapter 4, in review of medical physiology, 19thEdn, Lange 2001, 499-528.
10. Guyton and Hall. The cell and general physiology, Chapter 1 in text book of medical physiology, 9thedn, Prison and W.B. Saunders, 1996, 1-10.
11. Fenton O, Fonton ML, Britto JA. The skin, skin tumors and plastic surgery, Chapter 9, The new Airds comparison in surgical studies. 2ndEdn, Edt – Burnard G. Kevin and Anatomy e Young, London, Churchill Livingstone, 1998, 165-203.
12. Coleman David and DalviHumhan M. Plastic and reconstructive surgery, Skin Lesions” Chapter 13, In Bailey and Love’s-short practice of surgery, 23rdedn, Edt – R.C.G. Russell, Norman S. Williams and Cristopher J.K. Bulstroda, London, Arnold Publishes, 2000, 163-188.
13. Randal Bollinger R. Auto transplantation, Chapter 18, In textbook of surgery, 14thEdn, Edt – David C. Sabiston, W.B. Saunders Company, 1991, 455-465.
14. Richard L. Simmons, Suzzanne T. Lldsted, Craig R. Smith, Keith Reemtsma, and John S. Najarian “Transplanatation” Chapter 10, In “Principles of surgery” 6thEdn, Edt – Seymour 1. Schwartar, G. Tomshires, Frank C. Spencer, McGRaw – hill, Inc, 1994, 377-450.
15. Bhisagatha KKL. The sushutaSamhithe (English translation base on original Sanskrit text) varanasi, Choukhamba, Sanskrit Series, 1963.
16. The Zeis index and history of plastic surgery 900 BC to 1863 AD. Translated with addition anreviosin, by Thomas J.S. Patterson: Williams and Wilkins, 1977.
17. David JS. The story of plastic surgery. *Ann Aurg*, 113, 1941, 641-656.
18. Chick LR. Brief history and biology of skin grafting. *Ann PlastSurg*, 21(4), 1988, 358-365.
19. Pollock GD. Cases of skin grafting and skin transplanatation. *Trans ClinSocLond*, 4, 1971, 37.
20. Fresh water M and Krizek T. George David Pollock and the development of skin grafting. *Ann Plat Surg*, 1, 1978, 97-102.
21. Rank B. The Story of Plastic. SurgOry 1868-1968. *Practitioner*, 201, 1968,114-121.
22. Gibson T and Medawar PB. The fate of skin homografts in man. *J Anat*, 11, 1943, 299-309.
23. Webster JP. Refrigerated skin grafts. *Ann Surg*, 1944; 120, 421.
24. Bennett JE, Miller SR. Evaluation of the electro-dermatome. *PlastReconstSurg*, 45, 1970, 131-134.
25. Trier WC and Soll KW. United states Navy skin bank. *PlastReconstSurg*, 41, 1968, 543-548.
26. Polgo C, Smith AV. Parkos AS. Revival of spermatozsoa after vitrification and dehydraton at low temperature. *Nature*, 164, 1949, 666.
27. Brown JB, Minuet PF, Randal P. Postmortem homografts as biological dressings for extensive burns and denuded areas. *Ann Surg*, 138, 1953, 618.
28. Eade GG. Relationship between granulation tissue, bacterial and skin grafts in burned patient. *PlastReconstSurg*, 22, 1958, 42.

29. O, Donaghue MN and Zarem HA. Stimulation of neoascolarization-comparative efficacy of fresh and preserved skin grafts. *PlastReconstSurg*, 48, 1971, 427-477.
30. Cochrane T. The low temperature storage of skin: A preliminary report. *Br J PlastSurg*, 21, 1968, 118-125.
31. Rheunwald J and Green H. Serial cultivation of strains of human epidermal keratinocytes. Formaotn of keratinizing colonies form single cells. *Cell*, 6, 1975, 331-344.
32. O'Connor NE, Mulliken JB, Banks-Schlegel S et al. Grafting of burns with cultured epithelium prepared from autologous epidermal cells. *Lancet*, 1, 1981, 75-78.
33. Phillips TJ. Cultured skin grafts.Past, present and future. *Arch Dermatol*, 124, 1988, 1035-1038.
34. Eaglstein WH and Falagha V. Tissue engineering for skin: An update. *J and Acad Dermatol*, 39(6), 1988, 1007-1010.
35. Kirsner RS, Falanga, Eaglstein WH. Biology of skin grafts. Grafts as pharmacologic agents. *Arch Dermatol*, 129, 1993, 481-483.
36. Sponce KJ and Wong L. The enhancement of wound healing with human skin allografts. *SurgClin North Am*, 77(3), 1997, 731-45.