

Content available at: <https://www.ipinnovative.com/open-access-journals>

IP Indian Journal of Clinical and Experimental Dermatology

Journal homepage: <https://www.ipinnovative.com/journals/IJCED>

## Letter to Editor

# Skin donation - A brief and its importance

Sudhir Singh<sup>1,\*</sup>

<sup>1</sup>Dept. of Plastic Surgery, Getwell Hospital, Varanasi, Uttar Pradesh, India



### ARTICLE INFO

#### Article history:

Received 02-10-2020

Accepted 28-10-2020

Available online 05-12-2020

© This is an open access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>) which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

I am the skin, the largest organ, the body can boast of. Can I be donated like other well known organs like liver, blood, kidneys, eyes and others. Yes, it pains me that only few know about me which can be donated as protective armour as was done in ancient time by Mahabhartha hero Karna who donated his congenital protective armours akin to skin modification to Lord Indra to keep his sanctity of words and was killed. When soul leaves, my primary function of protecting that body has no significance and so can be donated to protect some body in need. I feel bad that people are only concern about caring me when one is alive and never thought as routine to harvest me after death before disposing the body which I protect, for keeping as armour to protect extensive burn patients till healing procedures are promoted.

I was burnt more than seventy percent with more than fifty percent deep dermal burn. I knew that prognosis of my survival was almost nil as my body was exposed to infective microbes and had vapoured off lot of fluid complicating my kidney functions. However the burn specialist were taking lot of care by providing first with silver sulfadiazine ointment and within 48 hours shifted to collagen dressings and even nanocrystalline dressings but I wanted something more like skin grafting after debriding necrotic tissue. But doctors found difficult due to scarcity of donor skin area in me. They even have tried radiated stored amnion sheets but with little benefit. A week has passed and wound culture

was changing. I needed miracle to happen to repair myself in time otherwise the soul in me has no option but to leave as my defence mechanism has been lost.

I came to know an accidental patient had died and his relatives were donating eyes. Suddenly I heard my doctor was convincing them for donating cadaveric skin for patients like us. He was telling them about skin banking awareness in which cadaveric skin is harvested within 6 hours of death of non infected persons who are tested negative for HIV, HBV and HCV and is stored in fifty percent glycerol, transported on chilled ice and in skin bank it is further processed and stored for future use in eighty five percent glycerol. Portion of the graft itself are tested for bacteria and fungi. It can be preserved for many years with minimum loss of viability at minus seventy degrees centigrade by help of liquid nitrogen, dry ice or electric refrigeration. I had a glimmer of hope. I came to know that first skin bank in Europe, the Yorkshire Regional Tissue Bank in England in 1960 and Dutch National Skin Bank of Netherlands in 1976 were the pioneers. Only few know that Mumbai was the initiator in our country in 2000 and by 2009 the collaboration of the national burns centre, Mumbai Rotary International and EuroSkin Bank started successful functioning centre latest by 2013. After that many centres spread but it is great dismay that there is little awareness on the availability of cadaveric allograft skin and its storage banks and so no appeal for people for cadaveric donation. Fortunately my doctor arranged the cadaveric allograft otherwise he was in a fix as it was unethical to

\* Corresponding author.

E-mail address: [s.sulekha@gmail.com](mailto:s.sulekha@gmail.com) (S. Singh).

get living allograft skin from many relatives to cover my burn wound. He was telling my relatives the other option of integra the artificial skin which was very costly where as cadaveric skin bank allograft skins are very cheap and affordable.

I was treated with both meshed autograft and cadaveric allograft as sandwich technique in which the autologous epithelium covered the wound as allograft got separated in two to three weeks time. Really my defence was restored by the availability of skin banks only. I realized that the cadaveric skin adds in to me in protecting the body from infection, loss of fluid and promotes anabolism and prepares wound for definitive cover.

So extensive burn causes high mortality and it is due to lack of skin bank supplying cheap cadaveric skin allografts to cover the burn wound till healing procedures are planned and executed. It is protective and healing in nature. Burn injuries are the fourth most common cause of trauma. Burns of more than forty percent are often successfully treated with these allografts. The utility of cadaveric human skin

as allograft is still not well known in public. It reduces morbidity and mortality by preventing infection in acute burns and preparing wound bed in chronic burns. Educating people to overcome the cultural and religious practices in donating skin after death also requires involving religious teachers and political will. I want all news and media to develop a long term awareness program to educate in helping the masses to understand about the utility of skin banking and also appeal the people to donate their skin within six hours of death. We have to develop safe donation protocols. Simple instrument like humby's knife or electric dermatomes suffice. Skin bank is the need of hour for burn patient treatment.

#### **Author biography**

**Sudhir Singh**, Honorary IMA Professor & Sr. Consultant Plastic Surgery

**Cite this article:** Singh S. Skin donation - A brief and its importance.  
*IP Indian J Clin Exp Dermatol* 2020;6(4):298-299.