

fection. it weighs 300-2000 gm and its surface area is 300-2000 sq. cm. It can be easily exteriorized through mini lap without extra morbidity. Mobilization of comparatively large skin flaps is difficult, requires prolonged surgery and anaesthesia and leaves behind large scars. It has the advantage of rich vascularization and the quality of adhering to other tissues which can subsequently be rapidly vascularized. In this patient extensive raw area with bone and tendons naked was provided full coverage through a mini lap with the help of short operative procedure and practically no blood loss. For these qualities omentum is being frequently used in plastic surgery. Goldsmith et al, 1973 reported a successful use of intact omentum in reconstructive procedures for oesophageal fistula². It has been used successfully for filling cavities of pancreatic cysts and hepatic hydatid cysts. It is also being used in severe burns of hands, radionecrosis, trauma thumb reconstruction and for covering a total hand prosthesis³. It has been used in reconstruction of chest wall defect⁴. Turner-Warwick et al have reported use of omentum pedicle graft in the repair and reconstruction of the urinary tract.

The advantage of using omentum in hand and fore arm is that a large quantity of fatty connective tissue with very good blood supply and impressive potential for limiting scarring can be reliably transferred on to a badly traumatised hand and forearm where there is almost soft tissue distraction, covering the remaining bare bones with a thick glove of omentum which is immediately covered with partial thickness skin grafts. Nerves

and tendons can also be replaced during the same procedure and they remain protected by the skin grafted omentum.

I recommended its use for coverage in extensive skin loss of fore arm and hands where extensive full thickness skin flaps are needed. This is short and safe procedure with a high success rate, minimum morbidity and no mortality.

Reference

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OMENTAL GRAFTING IN FORE ARM

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Abstract

A 45 years old female patient was admitted with extensive fore arm injury after a road side accident. There was loss of skin and muscles of the flexor compartment. Most of the flexor muscles were lost leaving the bones necked. Only a few muscles were left in the extensor compartment but the skin was totally lost. The skin on the dorsum of the hand was also lost. The remaining tendons were left necked. The finger tips were pale and cold. After 48 hours the finger tips became black. The greater omentum was mobilised through a mini lap to cover the extensive raw area, to provide coverage to the bones and tendons and to bring nutrition to the ischaemic hand.

Case Report

Mst. Ghulam Sakina, 45 years old lady was admitted as an emergency after a road side Accident. There was complete loss of skin of the fore arm and dorsum of the left hand. Only a few muscles were left in the extensor compartment. The bones were necked and finger tips were pale and cold. Finger tips became gangrenous after 48 hours. An amputation was advised but it was denied by the patient. The limb needed immediate coverage with full thickness skin and some measures to improve nutrition (Figure-1).

The greater omentum was mobilised through a mini lap. The right gastroepiploic vessels were ligated to give extra length and mobility to the omentum. The circulation was maintained by the left gastroepiploic vessels and gastroepiploic arch. The omentum was wrapped around the fore arm to cover all the raw areas and stitched in place. Partial thickness skin grafts were immediately applied over the omentum. There was a successful take of skin grafts and within 6 days there was no raw area left behind. The progress of the gangrene stopped. The pedicle was divided after 3 weeks

and the defect repaired under local anaesthesia (Figure-I, II).



Fig. 1. Trauma to fore-arm resulting in extensive soft tissue loss and precarious circulation with imminent gangrene of finger tips.



Fig. 2. Same patient after omentoplasty (3 weeks).

Discussion

The greater omentum is known to be of greater help in the local defence mechanism of the abdominal viscera. It is frequently seen to be wrapped around an inflamed appendix, sealing a perforation, walling off an abscess cavity and covering ischemic and gangrenous intestine. It is also being frequently used externally in mammoplasty, radioecrosis of the chest wall and axilla and in hand injuries. It has a double supply and is rich in vascular and lymphatic network¹. It has lot of fat for padding the tissue defects. It has special immunological properties. It is very resistant to in-

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