

TWO GROIN FLAPS OUT OF ONE

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It is well recognised that complicated or neglected injuries of the wrist may require skin flap cover before mobilisation and extensive reconstruction can commence. When these injuries affect both wrists, a conventional flap repair might well require the use of two separate flaps and a prolonged period of incapacitating immobilisation. A case is

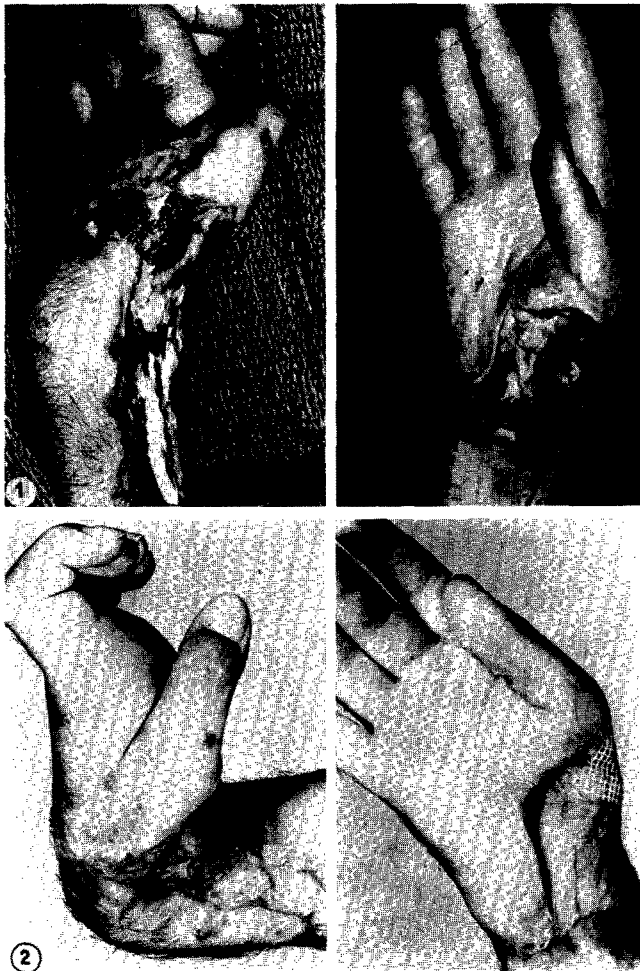


FIG. 1. On admission, six weeks after injury, both wrists show unhealed granulating wounds with severe wrist and finger deformities.

FIG. 2. Temporary skin cover was achieved with split skin grafts.

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presented in which one groin flap was used to provide full-thickness flap cover to both wrists. One wrist was covered using the groin flap in the traditional manner. The opposite wrist was covered using the remainder of the groin flap as a free flap transfer. The time saved by this manoeuvre was particularly valuable in the management of our psychiatrically disturbed patient.

CASE REPORT

A 23-year-old psychotic patient inflicted severe wounds to the flexor aspect of both wrists by rasping them across a broken window pane. He was found to have divided all the soft tissues at each wrist, with the exception of the left flexor carpi ulnaris and a few fibres of the left ulnar nerve. At the initial operation an attempt was made to repair both median nerves, the right ulnar nerve and an assortment of tendons to the digits. The radial and ulnar arteries on both sides were ligated. The shredded skin was approximated and the wrists immobilised in flexion. Unfortunately, the skin wounds broke down and six weeks after injury he was referred to the Plastic Surgery Unit at Roehampton.

On admission, both wrists showed chronically infected granulating wounds with a rapidly developing flexion deformity of the wrist and fingers (Fig. 1). It was obvious that this man would need extensive surgical reconstruction of both hands and that, as soon as practicable, full thickness skin cover would be needed at each wrist.

During the early period of psychiatric observation the wounds were closed with split skin grafts (Fig. 2) and an attempt was made to improve the position of the wrist and fingers with splints. A hopeful prognosis was given by our psychiatric colleagues and, ten weeks after injury, a right-sided groin flap, 20×7 cm, was used to resurface the defect in the right wrist (Fig. 3). The raw surface under the carrier segment of the groin flap was skin grafted. Post-operative recovery was uneventful and four weeks later the flap was divided and its insertion completed on the right wrist.

The scar over the left wrist was then excised to produce a defect measuring 13×8 cm. The left radial artery and its venae comitantes, 2 cm proximal to the previous ligature, were prepared as suitable recipient vessels. A pattern of the defect was made and transferred to the right groin so that it included laterally the carrier portion of the previous groin flap and extended upwards and medially into the anticipated territory of the inferior epigastric vessels (Fig. 4).



FIG. 3. A right-sided groin flap was used to resurface the right wrist.

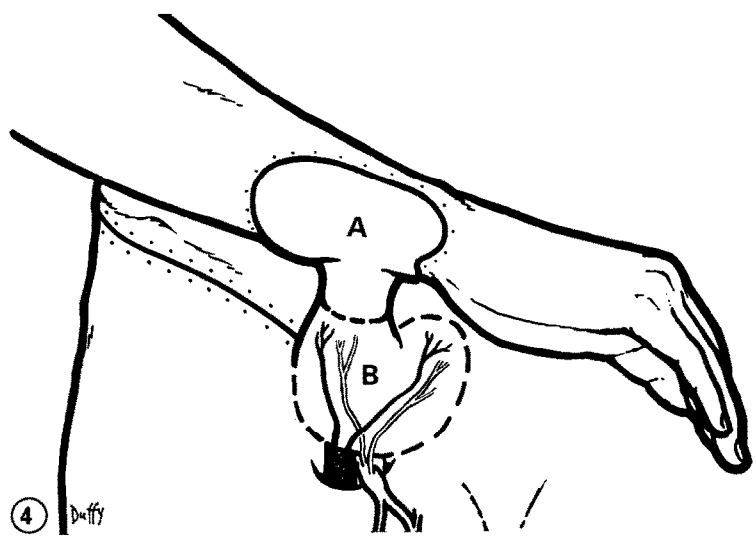


FIG. 4. A diagrammatic representation to show the groin flap attached to the right wrist (A) and the extension of the flap that was designed as a free flap transfer (B).

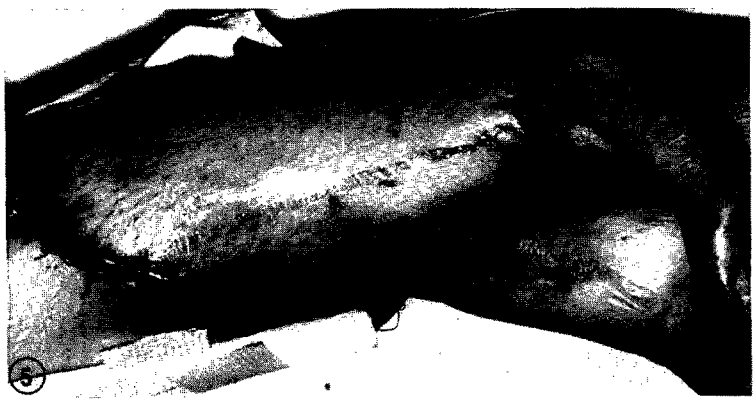


FIG. 5. Free flap transfer to the left wrist completed.



FIG. 6. Both wrists four months later.

Both the superficial circumflex iliac artery and the superficial inferior epigastric artery were dissected down to their origins at the femoral artery. Several large veins were found draining both elements of the flap and traced to the saphenous vein. The superficial inferior epigastric artery, being larger, was chosen as the donor vessel and the flap was isolated on this pedicle. A routine free flap transfer was then performed by end to end anastomosis. The postoperative course was completely uneventful and physiotherapy recommenced ten days after surgery (Figs. 5 and 6).

We are grateful to Mr A. J. Evans, F.R.C.S. for permission to publish this case and to Mr Duffy and Mr Jankowski for their help with the illustrations.