THE METHOD OF AUTOTRANSPLANTATION OF DISEASED TISSUE IN PATIENTS SUFFERING FROM RHEUMATOID ARTHRITIS

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Following my paper about the autotransplantation of the diseased capsules of joints published in Acta Medica Scandinavica, Vol. 129, fasc. VI, 1948, I give here a description of the operative method I have used in the treatment of rheumatoid arthritis.

Altogether I have operated on 30 patients since 1944.

As an affected knee-joint most frequently was operated upon, I will describe this operation.

Under local anaesthesia the bed for the transplant is first prepared in the lower left umbilical region. A curved incision about 5 cm. long is made perpendicularly through skin and subcutaneous tissue down to the fascia of the muscle. The upper edge of the wound is retracted slightly (fig. 2) and a second incision is made through the deeper layer of the subcutaneous fat running obliquely proximally towards the skin, which it reaches on its inner side about 3-4 cm. proximal to the first curved incision. As soon as the deepest layer of skin (the corium) is visible, it is cleared of its subcutaneous fat over a circular area of not more than 2 cm. (fig. 1 and 2) in diameter. This area is scarified with the knife, care being taken not to break the skin. In this way an oblique channel is established for the reception of the transplant. The wound in the abdominal skin is now closed temporarily with towel forceps.

A second incision, 6 to 8 cm. long, is made in the region of the lateral part of the suprapatellar pouch of the diseased kneejoint (fig. 3). The iliotibial tract is incised and the fibres of the m. vastus lateralis are separated bluntly. The tendon of the quadriceps is incised in continuation of the separation

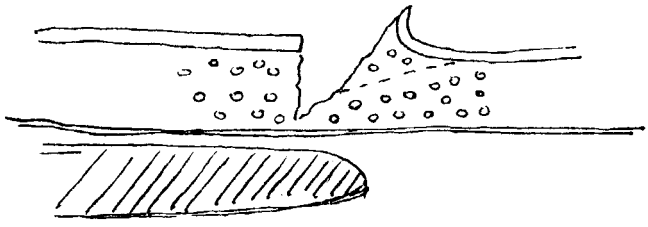

Fig. 1.

of the quadriceps-fibres. The capsule can now in some cases be easily separated. However, in most cases the capsule had to be separated by dissection with a knife due to partial or complete adherence to the quadriceps. In the dry form of arthritis the quadriceps was sometimes adherent to the femur; in such cases the muscle was carefully freed.

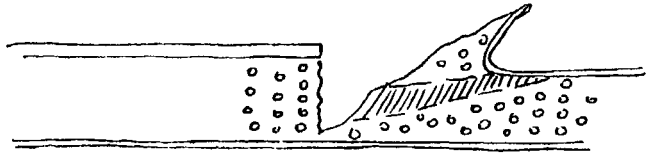

Fig. 2.

If fibrinous material is found, it is expressed and emptied from the joint. No lavage of the joint is done.

A piece of capsule of varying size, depending on its condition is then excised and the wound at the knee is closed temporarily with towel forceps. The excised tissue, which sometimes also contains periarticular scar tissue, is immediately transplanted by suturing 2 catgut threads to two of its corners (fig. 4), and threading them through the skin, where it has been denuded of subcutaneous fat and scarified; the threads are tied over the skin. In this way part of the transplant is

brought into contact with the scarified deep layer of the skin. It is fastened by a few catgut sutures to the surrounding subcutaneous fat and the wound is closed. Haemostasis has to be

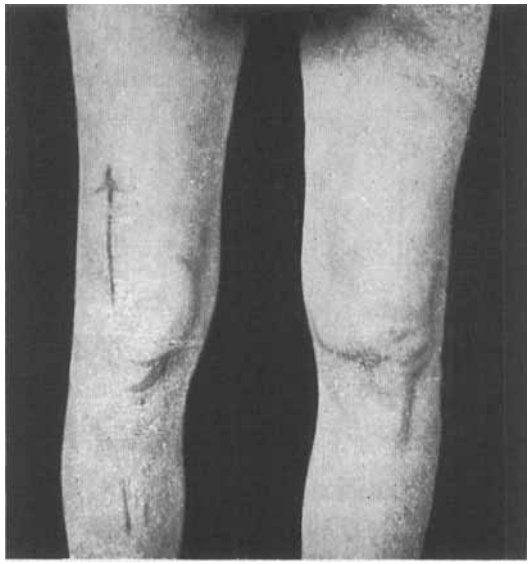

Fig. 3.

very accurate as the transplanted capsule diminishes the coagulation tendency of the blood locally.

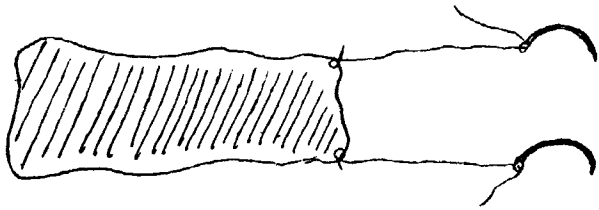

Fig. 4.

The wound at the knee is closed by suturing the quadriceps, the iliotobial tract and the skin, with figure of eight sutures of silk or linen thread, so that after removal of the sutures no un-

resorbable material is left. The capsule is not sutured at all.

A pressure bandage with elastoplast is applied to the abdominal wound. The operated limb is immobilised in a plaster of Paris dorsal splint from the toes to the buttocks. A one-pound sandbag is put on the abdominal wound for 24 hours. The splint is removed the 5th or 6th day after operation, a tricotbandage is applied to the knee and active movements are started. The stiches are removed from the abdomen on the 7th, from the knee on the 10th day.

Before the patient is allowed to get up, at least 3 weeks after operation, an Unna's paste bandage is applied from the toes to the middle of the thigh, this permits a certain amount of movement at the knee-joint.

If there are joint contractures suitable for treatment by traction, this is started 2 to 3 weeks after operation. Such treatment is very often possible after operation, as in most cases the pain in all affected joints has diminished considerably by this time.

Almost all the patients operated upon since 1944 were advanced cases of from 3 to 29 years. 22 were females, 7 were males. The age was 17 to 60 years. All but two showed marked improvement immediately after operation. So far, 13 are still improved 3 years to 6 months after operation, while the others have had a partial or complete recurrence mostly about one year after operation.

SUMMARY

Since 1944 the author has treated 29 patients with rheumatoid arthritis by transplantation of part of the capsule of the affected joint to the abdominal wall. 13 cases had lasting improvement. The technique is described in detail.

RESUME

Depuis 1944 l'auteur a soigné 29 malades souffrant d'arthroite rheumaticale par autotransplantation de la capsule

articulaire atteinte à la paroi abdominale. Chez 13 malades, il a obtenu une amélioration durable. Sa technique est décrite d'une manière détaillée.

ZUSAMMENFASSUNG

Verfasser hat seit 1944 29 Patienten, die an einer Arthritis rheumatica litten, mit Autotransplantation der affizierten Gelenkkapsel in die Abdominalwand behandelt. 13 zeigten dauerne Besserung. Die Technik wird ausführlich beschrieben.