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History

The history of the groin flap

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This story typifies to perfection that within the structure of the British Health Service at the time the history of the groin flap was evolving, it was possible to innovate and discover methods of surgery which would be extremely beneficial to patients and advance the specialty of reconstructive surgery. Patients at that time also helped this progress because they were very trusting and accepting of their surgeon's decisions and greatly appreciative of any treatment offered to them. When I look at the present situation here in USA where every last detail has to be explained to the patient and where certainly there is absolutely no question of carrying out experimental surgery, it was a most amazing, exciting and rewarding time to be in plastic surgery. Those dim and distant days were amazing. At that time, in 1972, I had been a consultant – a very junior consultant of course compared to Ian McGregor – for about three years. In spite of this, we had frequent discussions about methods of reconstruction and cooperated on many of the ideas we produced.[1] Over quite a long period of time we frequently discussed the concept of flaps which had a dominant blood supply and we both felt that this anatomical fact must be significant.

THE HISTORY

At this time the tube pedicle was really our only way of transferring large amounts of material, but it did involve the inevitable "delays" and it was to get around this particular aspect of reconstructive surgery that we began to think in a different way, particularly in relation to the resurfacing of the hand. After much discussion and head scratching we came up with the idea of using the vascular leash in the groin area. I will admit quite freely that Ian McGregor was much more aggressive about this than I was; because of course he was older and wiser! We thought that the groin offered an opportunity to allow a flap to be raised, based medially on the vessels of the groin. We had an idea of the anatomy in this region albeit rather vague at that time. Having talked about this at great length the next step was to actually put this concept to the test.

The first case

I was very fortunate that right at this time I had a young patient who was a self traumatizer and frequently exercised this trait on the dorsum of his left hand. He had many skin grafts which broke down due to his self-abuse. We had tried many and various attempts at promoting healing of his hand but all were unsuccessful. It seemed to me that he was the ideal candidate for this new concept and therefore I brought him to the operating room, removed the scar tissue and the open wounds on the dorsum of his hand, lifted up a flap from an area where I was presuming the vessels would be. The flap was taken down to the fascia fortunately! The donor site was closed and the flap was placed on the back of the young man's hand. Much to my surprise everything went very well and after three weeks a delay was carried out and ten days later I divided the flap. There was some concern at one stage but the procedure was successful and our young patient had no more episodes of traumatization!

Ian of course had somewhat mixed feelings about all this but I reassured him that although I had impetuously forged ahead with the procedure this was in fact 'his flap' and that this is exactly the way it would be published!

The second case

The following week, again with the enthusiasm of youth, I had a patient who had a vascular malformation of his heel which had broken down time and time again. Now armed with my great experience of this new kind of flap I was determined to use it to resurface the heel. I decided that I would transport the flap down to the heel with an intermediate stage of attachment to the wrist. It so happened that at that time a very well-known German professor was visiting and as he came into my operating room I, just for devilment, drew two lines in the groin area. When he saw these he said "Ach – you are raising a tube pedicle – I have done hundreds of these, I am not interested in this". Showing his utter disgust he turned and went off to another operating room to see something which might be of more interest to him carried out by perhaps Tom Gibson or Jack Mustardé. A little later he came back to my room just as I had made a very long and somewhat bulky tube pedicle and closed the donor site under the tube. At this critical point I had a knife in my hand poised to cut the lateral end of the tube. Seeing this he screamed at me "you are crazy - this flap will die!" Reinforced by my great experience of one previous flap I told him that of course it wouldn't die! I immediately cut the flap which sprayed blood all over the front of the Professor's gown! He was not amused but he was amazed! The end of the flap was then sutured to the wrist and later taken down to the heel where it resurfaced the area perfectly following a complete resection of the vascular malformation.

THE SCIENCE—POST FACTO!

Obviously it was necessary now to introduce some science into the project! One of our registrars was dispatched to the university anatomy lab to find out not only why the flap survived but also to establish the accurate anatomy of the groin area and this indeed he did. Can we mention the name please?—The person concerned may feel acknowledged. This tale is very helpful because not only does it recount the discovery of a new flap but it also explains why the first report to be published was a clinical one[2] and the second was a scientific report of the dissection of the blood vessels which supplied the flap![3]

Little did we know at that time that we had in fact opened up a door, a door which would lead to more rapid reconstructive surgery and eventually allow the concept of free tissue transfer to become a reality. It also underlines the great benefit of the British National Health Service and the wonderful attitude of the British patient to the medical profession.

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