

The history of the groin flap by Ian Jackson

Dear Sir,

I consider it a privilege that you allowed me to have a “prepublication look” into this fascinating and historically important first person account by Dr. Ian Jackson of the first groin flap. He is probably one of the most hardworking, illustrious and well known of my peers but even more gratifying is to remember the other stalwart Scotsman, Mr. Ian McGregor on whose shoulders many of us stand by way of his book “Fundamental Techniques in Plastic Surgery” and who was the first author of that landmark paper.

This first person account has a very pertinent paragraph entitled ‘science post facto’. The intuitive element in many a discovery is not just a chance. The discovery is the result of an intense struggle in the brain of the discoverer to find a solution to a problem that is frequently encountered by him or her. The lives of Sushruta in our specialty and Einstein in Physics are two great examples of this struggle. They never went to a laboratory but forced others into it. In science, the inductive method of logic followed by deductive labor is the wonderful marriage of inspiration and hard work.

Dr. Jackson’s reference to his “work environment” is also noteworthy and conveys a deeply held subconscious trust that progress in science is more a result of the human urge than wealthy endowments or a certain economic system. Remember Faraday, the book binder who showed (!) us electromagnetic waves and how

Maxwell, another Scotsman then built a huge mathematical edifice on the basic truth.

The most thrilling part of the article is the use of the words “a leash of vessels in the groin” which Mr McGregor was more aware of than Dr. Jackson. Indeed! Flaps are a product of a leash of vessels and any attempt to categorize them as venous or arterial or to compartmentalize them into rigid territories is fraught with a certain danger to progress in the development of new flaps. I might sound irreverent but I think our fixation on tube pedicles robbed us of valuable years till Milton^[1] saved us from our straitjacket and quoted Hynes^[2] and Kernahan and Littlewood^[3] to tell us that “long narrow flaps can be made with safety when care is taken that they are based on known vessels”. I write this paragraph because I have just realized that the first free flap was not perfused by the superficial circumflex iliac artery (though 90% of the flap was a groin flap) but by the superficial inferior epigastric artery which our present wisdom tells us does not perfuse the groin flap. I quote from the landmark paper by Daniel and Taylor:^[4] “Complete isolation of the flap was thus achieved, the stem consisting of the superficial inferior epigastric artery, the joined venae comitantes of the superficial circumflex iliac artery and the superficial inferior epigastric vein.” If the reader will look up Gray’s anatomy and the description of the vessels in the groin as well as the paper by Daniel and Taylor,^[4] he will be convinced that something extraordinary happened in the very first successful free flap called an ilio-lumbar flap. Fujino^[5] six years earlier was coining a new term ‘axial veins’ within a flap and the work by Taylor *et al*^[6] that nerves hitchhike with blood vessels was to come 19 years later.

In fact Daniel and Taylor^[4] in their discussion on the case report appear to be making a point about the importance of venous circulation. One of these days someone somewhere will unleash more information on the mysteries surrounding “leashes of blood vessels”. Nature awaits and probably holds her breath!

Ravin L. Thatte

46, Shirish, 187, Veer Savarkar Marg,
Mumbai - 400 016, India

Address for correspondence: Ravin L Thatte,
46, Shirish, 187, Veer Savarkar Marg, Mumbai - 400 016,
India. E-mail: mail@artmartindia.com

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