PROPOSAL PLAN FOR HEEL RECONSTRUCTION GUIDED BY STUDYING OF CUTANEOUS MICROCIRCULATION

Thesis

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SUMMARY

Loss of substances over the heel and the lateral calcaneum constitutes difficult problem. Also absence of peripheral pulses, antecedent coronary or peripheral vascular thromboses constitute some of the hazards of local flap survival.

The use of laser doppler fluximetery and estimation of transcutaneous O_2 seems a non invasive accurate method of preoperative selection and mapping as well as a good method of postoperative detection of complications and how to handle them.

From our studies in this thesis we observe that pre-operative flap selection using these techniques are not significant, but we can rely on our observations on postoperative flap monitoring as posterolateral malleolar flap is a very versatile flap even with potentially ischemic limbs as shown in the postoperative monitoring of such flap. So we recommend its use whenever possible.

The use of other flaps as medial plantar artery flap and reversed sural artery flap can be done in other cases in which posterolateral malleolar flap is not feasible and from our study we found them also more or less a reliable flaps.

In few selected cases the use of distant flaps like cross leg or free flaps can be used whenever there are no other options.

Also the use of these techniques facilitates early prediction of flap failure by estimation of transcutaneaus O_2 for each flap, and we recommend not to depend on flap perfusion as it gives false impression about the flap survival especially in the early postoperative period due to the severe congestion which occurs in all flaps.