Correspondence

Pedicled Omental Flaps

Sir,
I read with interest the article “Use of a Pedicled Omental Flap in the Treatment of an Infected Vascular Prosthetic Graft”. The authors suggest that the presented case is to their knowledge the first report in literature. I am sorry to contradict them but my article describing a similar case was published 24 years ago in the journal Chirurgie. I am pleased to say that my patient remained free of recurrent infection with a patent graft during the 14 years following treatment by a pedicled omental flap. I have subsequently used this technique in four other cases with success in three and failure in one.

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References


Arterial Graft Preservation

Sir,
I read with interest the paper by Vischjager et al. on arterial grafts preservation, however I believe that some important information is lacking.

The Authors correctly compare arterial with organ transplantation and state that the “gold standard” of organ preservation is presently cold storage in UW solution. This may be true for solid organs, but a wide body of literature demonstrates that long-term maintenance of both morphological and physiological arterial characteristics is currently possible only with cryopreservation techniques, in the absence of data using other methods. As stated by the authors, only short-term results of arterial preservation in UW solution are known; the results of a preservation interval of 14 days appear insufficient to draw conclusions on UW solution performance in creating a bank of arteries. Moreover, functional response to contractile and relaxing agents showed a significant decrease over time, with a residual overall function of approximately 50% after 21 days and 0% after 60 days. These data argue against the possibility of extending UW solution preservation over 2 weeks. Since the Authors are currently studying the effects of longer storage intervals, it would have been more interesting to assess them all in a single paper, possibly with a comparison with cryopreserved specimens.

The fate of morphologically preserved endothelial cells on the graft surface also remains obscure in the study. Although the morphological observations before and after arterial implantation suggest better preservation of endothelial cells in UW-preserved grafts, the actual behaviour of these cells under arterial flow conditions is not disclosed in the study. In fact, the Authors state that “... a neoendothelial layer had developed in the PBS groups (auto and allo PBS)...”. Thus, the observation of good endothelial coverage in the implanted UW arteries is of little help in determining endothelial cell behaviour and viability. We have previously shown that morphologically intact, cryopreserved endothelial cells are not able to withstand arterial flow in the rabbit model, although complete re-endothelialisation occurs within few weeks.

Endothelial denudation occurs commonly even in freshly implanted human autologous veins, and the re-endothelialisation time is dependent on the amount of surgical damage. It is known that endothelial coverage is easier in the animal model; therefore the data presented indicate only a different morphology of the endothelial layer in the treatment groups, and not necessarily the viability of the endothelial cells treated with UW solution. This issue is of paramount importance, since the benefit of preserving an intact
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endothelial layer is controversial in allografts. The endothelium provides antithrombotic characteristics which may turn into pro-thrombotic stimuli under several circumstances and, most importantly, it constitutes a great antigenic challenge to the host.

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References


Quality of Life After Treatment of Intermittent Claudication

Sirs,

We were interested to read the recent paper by Currie et al. demonstrating the impact of treatment of intermittent claudication on quality of life. Angioplasty and surgery offer short-term improvement to quality of life but the effect of restenosis and graft occlusion may minimise this improvement or in the latter significantly reduce quality of life. In such a non-randomised trial it is also not surprising that patients in the operative group have lower baseline quality of life. Supervised exercise programmes undoubtedly increase exercise tolerance in compliant patients but the authors have not reported the compliance rate of patients in their unsupervised exercise group. Patients who poorly comply with exercise would be unlikely to report significant improvement in quality of life. We have shown that a daily home exercise programme, supervised weekly by a physiotherapist for the first month achieves good compliance, increased walking distances and improved quality of life as assessed by the Nottingham Health Profile questionnaire.

We share the authors concerns that exercise, although improving local symptoms may have adverse remote consequences with neutrophil activation and systemic vascular endothelial damage. This may influence atherogenesis and therefore be implicated in the excess cardiovascular mortality in these patients. Surgery attenuates but does not normalise the increase in vascular permeability after treadmill exercise. Angioplasty itself is effected by cracking of the atherosclerotic plaque, exposing the subintimal layer. Perhaps angioplasty also has an adverse effect on future cardiovascular mortality? We suggest that we should have more information on the effect of therapeutic intervention on putative biochemical markers of vascular inflammation, rather than assessing outcome simply on the basis of quality of life.

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References