

## Venous Pressure in Hypertrophic Scars

Sir

Not having access to the *British Journal of Plastic Surgery* here in Nice, I have just received a photocopy of our letter to the Editor entitled "Hypertrophic scars: a vascular disorder leading to an increased formation of fibrotic tissue" (published in April 1986). This explains why I have been so long in replying to Dr Berry's question about a possibility of measuring venous pressure in hypertrophic scars.

I feel that direct cannulation measurements would be extremely difficult and, finally, useless in view of the expected heterogeneity of efferent vessels. On the other hand, having consulted Guyton's admirable *Textbook of Medical Physiology* (Guyton, 1986), I wonder whether interstitial free fluid pressure would not be an indirect indicator of increased venous pressure and of the state of hyperplastic scars in general. Interstitial free fluid pressure correlates with (a) increased capillary pressure caused by venous obstruction, (b) the known increase in capillary permeability and (c) lymphatic insufficiency. Lymphatic vessels regenerate quite well (McMinn and Pritchard, 1969) but I have not found any reference dealing with this subject in hyperplastic scars.

Yours sincerely  
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### References

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- Guyton, A. C.** (1986). *Textbook of Medical Physiology*. Philadelphia: W. B. Saunders Co.
- McMinn, R. M. H. and Pritchard, J. J.** (1969). *Tissue Repair*. New York, London: Academic Press.

## Blindness Following Cosmetic Blepharoplasty

Sir

Blindness following cosmetic blepharoplasty is of course the peak of tragedy as a complication of a cosmetic operation (apart from death itself).

I therefore read the paper by Mahaffey and Wallace with more than usual professional interest and I congratulate the authors on this exhaustive review. However, several passages provoke important comments.

First there is the passage on the intra-orbital infiltration of local anaesthesia which is "clearly implicated etc.". There follows a description of two ways to improve the injection technique and lessen the danger of infiltration. But why inject into the orbit at all? My experience is that infiltration of the orbit is obsolete because there is no need for it. I have performed hundreds of blepharoplasties under local anaesthesia with infiltration of the skin only and there has never been a problem of pain during removal of the intra-orbital fat. It is the eyelid rim, not the fat, which is hypersensitive and needs accurate anaesthesia.

Concerning adrenaline as the potential cause of retinal ischaemia, I was surprised the authors made no comment on the concentration which is normally present in 2% xylocaine, namely 1:80,000. A paper appeared many years ago in the *JPRS* on adrenaline complications with comparative series proving that 1:200,000 adrenaline is as effective as 1:80,000. In blepharoplasty it is of the utmost interest to know this detail. Furthermore, an equivalent of adrenaline, a derivative of vasopressin marketed as POR 8 (Sandoz)\* gives no tachycardia and therefore reduces the overall and local stress (and bleeding!) resulting from the intervention.

In the third place, the retina and the optic nerve are oxygenated by end-vessels, just as a finger tip. This is of capital importance and I congratulate the authors on stressing the point. But from this anatomical observation it follows that overdosage is to be avoided by every means; if you anaesthetise a finger at its base with 1 cc xylocaine + adrenaline only, this will do amply and the finger will survive, but if you do it with 3 cc the finger is in great danger and so are you! So it is also essential not to inject unnecessary quantities (adequate sedation lessens the need for large doses). In most cases 1 or 2 cc will do.

\*Ornithine-8-vasopressin. Not available in the UK (Ed.).

Now regarding cauterisation of intra-orbital fat. As a pupil of the late Sir Archibald McIndoe I have followed his teaching rather fanatically and in doing so have remained a fervent enemy of burning tissues. Cauterisation is very traumatic to the orbital contents and the more trauma the more danger of rebound spasm. So I only use a few drops of a thrombin solution which always gives perfect haemostasis without any trauma and with considerably shorter operation time, which again reduces the risk of swelling, haematoma, intra-orbital pressure, etc.

Your faithfully  
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#### Reference

**Mahaffey, P. J. and Wallace, A. F.** (1986). Blindness following cosmetic blepharoplasty—a review. *British Journal of Plastic Surgery*, **39**, 213.

#### Reply from Mr Wallace and Mr Mahaffey

Sir

We appreciate the opportunity to comment on Dr Robbe's letter, and welcome his findings that injections deep to the orbital septum have been unnecessary even in local anaesthetic procedures.

We apologise for not having commented on the concentrations of adrenaline available in local anaesthetic solutions, perhaps not believing that anyone would wish to use stronger than 1:200,000. Whether or not it is wise to assume that using smaller amounts of any adrenaline containing solution leads to greater safety is a difficult point. We would tend to feel that the substance is so pharmacologically potent as to exert virtually an "all or nothing" effect on very small arteries.

Yours sincerely

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