References

1. Rootman J, Lapointe JS. Structural lesions. In: Rootman J. Diseases of the orbit. Philadelphia: JB Lippincott, 1988:494–7.
2. Eijpe AA, Koornneef L, Bras J, Verbeeten B, Peeters FL, Zonneveld FW. Dermolipoma: characteristic CT appearance. Doc Ophthalmol 1990;74:321–8.
3. McNab AA, Wright JE, Caswell AG. Clinical features and surgical managment of dermolipomas. Aust NZ J Ophthalmol 1990;18:159–62.
4. Beard C. Dermolipoma surgery or 'an ounce of prevention is worth a pound of cure'. Ophthalmic Plast Reconstr Surg 1990;6:153–7.
5. Dortzbach RK, Kronish JW. Orbital disease. In: Dortzbach RK, editor. Ophthalmic plastic surgery: prevention and management of complications. New York: Raven Press, 1994:332–3.

Sir,

Ectopic Retinal Tacks

Retinal tacks provide a means of achieving intra-operative retinal fixation in complicated retinal detachments. On rare occasions they may become dislodged and can move within the globe. We describe a case in which this occurred with displacement of retinal tacks into the anterior chamber.

Case Report

A 59-year-old man was referred in June 1993 with a right retinal detachment. He had already undergone surgery at his local hospital for a superonasal detachment and received treatment with cryotherapy and a 5 mm radial explant. This proved unsuccessful and his retina subsequently redetached.

At presentation here, his visual acuity was perception of light with the right eye and 6/6 with the left. Fundal examination revealed a total right retinal detachment with an open break superiorly and grade D proliferative vitreoretinopathy (PVR). A pars plana vitreolensectomy was performed the following day under general anaesthesia. A large relieving retinotomy was created inferiorly to release traction from the PVR. Laser photocoagulation was applied to the edge of the retinotomy and the retina was flattened per-operatively with the aid of two tacks (Grieshaber 611.94) and silicone oil. The retina subsequently remained attached and the patient's visual acuity improved to counting fingers.

During a routine clinic visit, 9 months after the surgery, the patient mentioned that his right eye had been painful for the preceding fortnight. Slitlamp biomicroscopy revealed a retinal tack lying inferiorly in the anterior chamber with adjacent stromal and epithelial oedema (Fig. 1). Numerous folds in Descemet's membrane were present together with rubeosis iridis and a moderate degree of uveitis. After admission the tack was removed through a small limbal paracentesis under general anaesthesia.

Two months later, at a subsequent clinic visit, a second tack was found to be present in the inferior anterior chamber. Corneal changes similar to those described above were present (Fig. 2). This tack was removed using a similar technique and the patient has made a good recovery from this further surgery.

Discussion

Conventional retinal reattachment techniques have a lower success rate in complicated retinal detachments. Unrelieved retinal traction makes standard methods of retinopexy such as cryotherapy or photocoagulation, unsuccessful. Retinal tacks provide a means of apposing retina to retinal pigment epithelium (RPE), facilitating effective internal tamponade with gas or silicone oil. Tacks are also occasionally useful in the treatment of giant retinal tears and following relieving retinotomies to immobilise freely mobile retina. Their role in treating these conditions has, however, been largely supplanted by perfluorocarbon liquids.[1]

The first retinal tacks,[2] introduced in 1983, were made from polyacetal, an extremely hard plastic. Subsequently, inert metallic tacks[3] have been designed and those currently available are made from titanium[4] (Fig. 3). These tacks have minimal

Fig. 1. *Slit lamp biomicroscopy of the right eye showing a retinal tack lying inferiorly in the anterior chamber with adjacent stromal and epithelial oedema.*

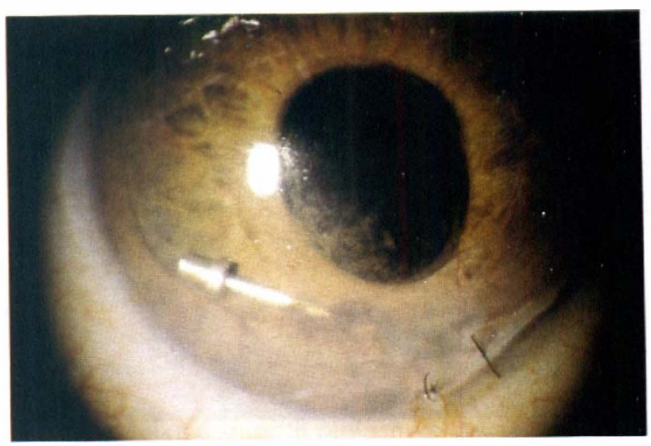

Fig. 2. *A second tack in the inferior chamber found at a clinic visit 2 months after the first tack.*

Fig. 3. *A titanium retinal tack, on a 1p coin to show the scale.*

ocular toxicity enabling them to be safely retained in the eye. This has been demonstrated by work on an animal model[5] in which minimal tissue response was found histologically following tack insertion. In addition published results report no adverse effects after tacks have been left in (human) eyes, for up to 18 months.[6] Various modifications of the original design have been devised, of which the inclusion of a barb is the most notable. This serves to anchor the tack to the sclera, minimising the risk of extrusion. Retinal tacks may be used either temporarily as a means of manipulating mobile retina intraoperatively or permanently to achieve prolonged (mechanical) retinal fixation.

Complications arising from the use of retinal tacks are recognised and instances of tack intrusion are documented in the literature. Lewis *et al.*[7] described cases in which retinal tacks became displaced, into both the subretinal and preretinal spaces as well as the anterior chamber. The ensuing complications included retinal phlebitis, vitreous haemorrhage, focal corneal damage and corneal oedema. In Lewis's series, the commonest cause of tack intrusion was found to be persistent tissue proliferation. This resulted in displacement of tacks into the globe and frequently coexisted with retinal redetachment. It was suggested that other factors contributing to intrusion were the design of the tacks and the surgical technique used. Non-barbed tacks, often of short shaft length, had been employed. Whilst the absence of a barb facilitates tack insertion it cannot prevent inadvertent dislocation of the tack into the globe. Likewise a shorter shaft precludes complete scleral penetration resulting in a more tenuous scleral anchorage for the retinal tack. Similarly surgical technique may be of importance as non-perpendicular tack insertion will result in incomplete scleral penetration. Placement of an explant after insertion of non-barbed tacks may displace tacks intraocularly and should be avoided.

In summary, retinal tacks are useful in certain circumstances, although permanent insertion may result in late complications as illustrated by this, the first described case of consecutive tack dislocation.

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References

1. Chang S, Lincoff H, Zimmerman NJ, Fuchs W. Giant retinal tears: surgical techniques and results using perfluorocarbon liquids. Arch Ophthalmol 1989;107: 761–6.
2. Ando F, Kondo J. A plastic tack for the treatment of retinal detachment with giant tear. Am J Ophthalmol 1983;95:260–1.
3. de Juan E, Hickingbotham D, Machemer R. Retinal tacks. Am J Ophthalmol 1985;99:272–4.
4. Abrams GW, Williams GA, Neuwirth J, McDonald R. Clinical results of titanium retinal tacks with pneumatic insertion. Am J Ophthalmol 1986;102:13–9.
5. Burke JM, McDonald R, Neuwirth J, Lewandowski M. Titanium retinal tacks with pneumatic insertion: histological evaluation in rabbits. Arch Ophthalmol 1987; 105:404–8.
6. de Juan E, McCuen BW, Machemer R. The use of retinal tacks in the repair of complicated retinal detachments. Am J Ophthalmol 1986;102:20–4.
7. Lewis H, Aaberg TM, Packo KH, Richmond PP, Blumenkranz MS, Blankenship GW. Intrusion of retinal tacks. Am J Ophthalmol 1987;103:672–80.

Sir,

Encysted Tenon's Bleb over Superiorly Placed Single-Plate Molteno Implant Causing Proptosis and Strabismus

Molteno implants are often used to control intraocular pressure when other treatment modalities have failed. They are associated with a number of complications, including encapsulation of the filtering