ular surgery in the absence of any clinically ascertainable intraocular inflammation (D.H.S., M.S.J., Y.H.O., J.M.R., unpublished data, 1985).

The ascorbic acid may be *the* factor or *one* of the factors responsible for the inhibitory effect of aqueous humor on fibroblasts. On the other hand, one has to reconcile the reports that drugs that decrease the aqueous formation, such as carbonic anhydrase inhibitors, cause an increase of aqueous ascorbate concentration[5] and that corticosteroids cause a decrease of aqueous ascorbate.[6] The known negative effect of carbonic anhydrase inhibitors on the outcome of glaucoma surgery may be due to the undesirable effect of a decreased aqueous flow through the filtering fistula, outweighing a potential benefit of increased aqueous ascorbate concentration. Likewise, the beneficial anti-inflammatory and antifibroblastic effects of corticosteroids must outweigh the potential negative effect of decreased aqueous ascorbate concentration. Thus, the picture may be a complex one involving many factors in addition to the ascorbate. For example, increase of plasma factors in the aqueous as the result of breakdown of the blood-aqueous barrier may be as detrimental, possibly by stimulating fibroblasts, as is decrease of the ascorbate.

Nevertheless, Jampel presents strong evidence for ascorbic acid as a possible aqueous factor important in the outcome of filtering surgery. He should be congratulated for his most interesting observation and for refocusing our attention on the importance of the aqueous humor in the success and failure of the filtering procedure.

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In Reply—I thank Dr Shin and colleagues for their kind and thoughtful comments. They cite references that demonstrate that the aqueous humor concentration of ascorbate increases with age in rabbits and that aqueous humor ascorbate concentrations are decreased in cases of neovascular glaucoma. It would be interesting to confirm these observations in a large number of patients and determine if aqueous humor ascorbate levels correlate with successful glaucoma surgery.

A great deal of attention has been given to improving the success rate of glaucoma surgery pharmacologically. Less emphasis has been given to understanding why the operation usually does work, given that most other surgical wounds heal completely. Shin et al correctly remind us that the reason glaucoma filtration surgery succeeds remains a mystery. Aqueous humor composition may be one of numerous determinants of the operation's success or failure, and clearly it merits further investigation.

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Eyelid Palpebral Springs in Patients Undergoing Magnetic Resonance Imaging: An Area of Possible Concern.

To the Editor.—Although most patients with seventh nerve palsies can be successfully treated with conservative therapy, some patients will require additional protection from exposure keratopathy. Placement of a palpebral spring in the affected upper eyelid is sometimes performed in these selected patients to provide needed functional and cosmetic improvement.[1,2] Acoustic neuroma resection is a frequent cause of the seventh nerve palsies seen in our referral center practice. These patients undergo periodic magnetic resonance imaging (MRI) scans to monitor for tumor recurrence. In light of this, we became concerned that placement of a stainless steel spring in the upper eyelid could potentially be dangerous in patients requiring periodic MRI scans, given the strong magnetic fields involved.

A 0.3-mm stainless steel, round, orthodontic wire (Unitek Corp, Monrovia, Calif) is the currently preferred wire for these springs.[3] The wire is available as 302, 304, and 316 stainless steel. The composition of the wire is 10% to 15% nickel, 15% to 20% chromium, 0% to 3% silicone, and 0% to 5% manganese; the remainder is iron.

A 7.5-cm-long piece of the 0.3-mm orthodontic wire was placed in a specimen cup and held approximately 30 cm from a 0.35-T MRI scanner (Diasonics Corp, Milpitas, Calif). As the specimen cup was moved back and forth in front of the scanner, the wire freely moved to magnetically align itself with the magnetic field. Clearly, placement of the wire in the scanner itself would have resulted in significant displacement forces between the wire and the magnetic field.

Typically, the spring is well fixed in position with permanent sutures, and it has been found to be well encapsulated in fibrous tissues 4 weeks after placement. This suggests that extrusion of the spring or significant migration is less likely if a spring has been in place for 1 month or more, but there may be significant risk to a recently placed device. Two of our patients with springs underwent MRI scans more than 3 months after placement without difficulty. It is also of interest to note that there was no appreciable heating of the springs during the scans.

A decision for palpebral spring placement should be made cautiously in a patient who is known to need frequent MRI scans. Stainless steel wire of 316L grade should be used, if possible, since it is less likely to be magnetic. If a spring is placed in a patient who subsequently needs an MRI scan, the scan should be deferred, when possible, until the spring is well scarred into position. However, slight migration or adjustment changes could potentially occur when the spring is subjected to the strong magnetic field of the MRI scanner. Thus, all patients with palpebral springs who undergo MRI scans should have their springs checked after the procedure.

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The authors have no proprietary interest in any spring material, device, or imaging equipment.

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