

Sir,
The minim technique for diagnostic anterior chamber paracentesis

We describe a technique of aqueous collection by using a minim of saline (Chauvin Pharmaceuticals, Essex, UK) attached to a 25-gauge needle. Benoxinate 0.4% and betadine 5% antiseptic solutions are instilled into the conjunctival sac. The patient is positioned on the slit lamp and a lid speculum is inserted. Sterile gloves are worn and a 25-gauge needle is attached firmly to the end of a saline minim (Figure 1). A 'click' is heard when the needle is inserted correctly. The minim is held between the thumb and forefinger and the saline is passed out through the 25-gauge needle. The minim remains depressed from this point. The eye is held steady either with a forceps or a cotton tip applicator on the nasal conjunctiva. The needle is inserted bevel up through the paralimbal peripheral clear cornea, anterior to the iris plane. Once the eye is entered, compression of the minim is slowly relaxed. The aqueous now enters the minim. Once a sufficient quantity of aqueous has been drained, without anterior chamber (AC) collapse, the minim is withdrawn from the eye. To avoid excessive vacuum, the minim may be depressed only half way before entering the eye. The needle is discarded and the cap is reattached to the minim. The needle-free sample is sent safely to the laboratory. The AC depth and pressure is checked 30 min after the paracentesis. The patient is started on a 3-day course of topical chloramphenicol TDS.

The complications of AC paracentesis are well known and include endophthalmitis, corneal abscess, hyphaema, and inadvertent lens touch.^{1,2} Traditionally, AC paracentesis has been performed with a tuberculin syringe, with or without a plunger attached to a hypodermic needle. When using a syringe without a plunger, there is often loss of aqueous when transferring the sample to a needle-free container. The minim technique does not eliminate these risk factors and potential complications, but does eliminate the awkward, often cumbersome manipulation associated with using an attached syringe for aspiration. The O'Rourke pipette (DORC) for aqueous sampling consists of a shorter $\frac{1}{4}$ inch 30-gauge needle attached to a deformable pipette, and is similar in its methodology of a vacuum-assisted aspiration of sample from the AC.³ Although



Figure 1 A 25-gauge needle securely attached to a saline minim.

acknowledging the increased length of the needle attached to the minim, and the potential for damage to the intraocular structures may be disadvantageous, the ability to cap the sample is clearly advantageous, both in eliminating loss of sample and in its future processing. Each minim contains 0.5 ml of volume. The volume of the AC is 0.3 ml. It is important therefore, that the minim is slowly released between thumb and forefinger, and that the entire volume of the AC is not lost. The use of 25-, 27-, and 30-gauge needles has been described earlier.²⁻⁷ The equipment needed for the minim technique can be found in any ophthalmology outpatient department. Furthermore, the ease of subsequent sample manipulation and aliquoting may prevent post-retrieval loss during processing.

References

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Sir,
Effect of systemic administration of valsartan, an angiotensin II type 1 receptor blocker, on retinal circulation in healthy humans

Recent studies have reported that inhibition of the renin-angiotensin system can reduce the progression of diabetic retinopathy.¹ We reported earlier that an angiotensin II type 1 receptor blocker can inhibit increased leukocyte entrapment in the retina of diabetic rats.² In addition, treatment with either an angiotensin-converting enzyme inhibitor or an angiotensin II type 1 receptor blocker normalized retinal blood flow in diabetic rats.³ These results suggest that renin-angiotensin system inhibition blocks a diabetes-induced