should be effected, however, with as little stretching of the tendon as possible. The natural wrinkles in the skin of the lid should be found not altered, but merely accentuated. The greater the power left in the levator, the greater the success of this operation, and time does not appear to lessen its effect. On the contrary, though the natural wrinkles of the skin display themselves quite prettily, the full effect of the operation is sometimes not obtained for three or four months. Herein it differs from those in which the effect begins at once to diminish. Perhaps the stretching takes some months to be recovered from, or it may be that the cicatricial contraction continues. Be this as it may, the final result is generally very pleasing, as I have proved in patients as young as five years and as old as seventy. The operation does some good in nearly all kinds of ptosis, but most, of course, when the tendon is well developed and the muscle not too completely paralysed. Not having yet applied "supported cauterization" to the tendon on the skin side, or to the suspensory ligament of the lid, I can say nothing about its merits, if any.

No purely posterior operation is, of course, available in the congenital absence of a levator, but in acquired ptosis it always does some good, since even if the levator be completely paralysed, the mere elasticity of the tissues working against the orbicularis counts for something. A posterior operation can, if necessary, be supplemented by an anterior one, such as Pagenstecher’s sutures, to bring the frontalis into play as well.

The oft-given caution need scarcely be reiterated that before undertaking any operation for complete ptosis, care should be exercised that troublesome diplopia shall not follow the uncovering of the pupil.

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ON MACULAR PERCEPTION IN ADVANCED CATARACT

BY

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Is the macula sound? A daily question in mature senile cataract. Our senses being nearly useless, experience guides us in deciding whether to operate or not. Macular disease occasionally eludes the most alert; inexpressibly aggravating are the consequences. Hoping to elicit something better, I venture to submit two methods which, at most, prognosticate a healthy macula.

For many years I placed a well centred, perforated disc in front of the test eye, the other being excluded. With a fine needle a hole, 0.2 mm., is easily made in a thin blackened card.
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This, placed 10 mm. in front of the nodal point, or 5 mm. in front of the cornea, theoretically yields a retinal image of 0.3 mm. In the dark room a shielded light (electric ophthalmoscope or transilluminator is capital) is brought close to the hole. The patient, having discovered the luminous dot, is told to fix it. The disc is gradually removed as far as possible from the cornea to reduce the size of the retinal image. Fixation must be maintained. The hole sometimes needs to be enlarged.

In intelligent patients this test succeeds. It fails too often in dull and childish folk. Exact calculation of the image is impossible, owing to diffusion of light, the actual light area becoming considerably larger than the diameter of the hole; this matters less. But quickness of the eye and the impossibility of true fixation make actual macular perception doubtful.

A test is needed which can only be passed by direct vision. Experimentally I have just applied an old phenomenon, which needs no comment, being familiar to us all. I did not expect much, but it is because it gave such a positive result I describe it here. The patient, an unintelligent woman, over 70, had abolished red reflex, the lens was still tumid, and anterior chamber was shallow. Vision equalled fingers distinguished directly in front of the eye.

I used three discs, perforated by two, three, and four holes respectively, within a central area of less than 3 mm. Placing them successively in the frame I approached the eye as near as possible to the frosted focus light behind the largest aperture of my Thorington chimney. The patient was told "look for the moon," and stated, without hesitation or error, when two, three, or four moons were seen, pointing out their relative position, which I was constantly changing by rotating the discs. The two-hole disc seemed to me to be most useful, each hand being used to follow the movements of the moons.

One can try this on one's own eye by holding an opaque glass disc close up to the eye with the perforated disc on the distal surface. The analogy to cataract is, of course, imperfect, the opacity here being in front of the cornea, to begin with. The accommodation of the lens, the size and action of the pupil perhaps also, can be nicely seen and observed. The moons alter their size, overlapping more or less.

I hardly think the moons could be counted and placed correctly with a defective macula. To prove this experimentally on the normal eye must be hard. But a disc of plain glass with a small spot of black sticking plaster placed at its centre, and held nearest the eye, the opaque disc and perforated one resting some distance in front of it, makes it impossible to see all the moons simultaneously and count them with precision.
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