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Pupil Dilators





EFFECTIVE:

While engaging the 12 o'clock pupil margin with the external micro-hook, a simple and controlled exposure of the micro-fingers results in symmetrical and simultaneous dilatation of the pupil.

SIMPLE:

Fitting easily through a phaco wound, the pupil is expanded, and the instrument is then removed leaving a widely dilated pupil during the surgery.

SAFE

This non-traumatic pupil dilator eliminates the need of costly and time consuming procedures.



#19009

4 points dilatation through 3 mm incision

#19027

4 points dilatation through 3 mm incision with curved design



#19009/2.8

3 points dilatation. This curved model of Beehler Pupil Dilator features a smaller diameter shaft, making it easier to insert through a 2.5 mm incision. This was accomplished by reducing the number of micro-fingers from three to two. We now have a simultaneous three points dilator instead of four, with equally good results.

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Pupil Dilators



"I hate small pupils! In my opinion, a small pupil adds a degree of difficulty to any cataract procedure. During my thirty years of practice, I have always utilized the current strategy to dilate the pupil so it was with a great deal of enthusiasm that I employed flexible retractors. I did chafe at the extra five to ten minutes it took to insert and remove the device, the four extra incisions required and subliminally the cost. I discovered that once the pupil had been stretched by four or three points dilatation, it remained dilated, and I found I could remove the dilators prior to phacoemulsification. This also allowed the iris to fall back away from the cornea, and out of the way of the phaco tip; this worked just fine. I was then determined to find a way to stretch the pupil at four or three points in a simpler and quicker fashion.

The instrument we developed employs extendable micro-fingers and an iris retractor to stretch the pupil. The micro-fingers, equipped with iris cups are housed in a metal tube that will easily enter a phaco incision. The tube itself is equipped with an iris retractor. The tip is introduced into the anterior chamber under viscoelastic with the iris retractor oriented parallel to the incision (1). After entering, the retractor is turned 90 degrees and engages the pupil margin (2).

As the tip and hooked pupil are withdrawn, the micro-fingers are extended by means of a thumb button (3). The cups on the micro-fingers engage the pupil margin one by one. The micro-fingers continue to extend, enlarging the pupil at four or three points. This is not the time to be timid, the pupil is extended to the limbus (4).

The microfingers are then retracted, the iris retractor disengaged by centering the tip, then turning the tube 90 degrees (5). The tip is then easily removed from the anterior chamber.

Cyclopegics must be employed in the usual way. Then as the constrictive, fibrotic fibers are stretched, the dilating muscles will hold the enlarged pupil open. This instrument is ineffective on an eye which has not been properly medicated preoperatively. Without cycloplegics, the pupil will constrict as soon as the dilator is removed.

This instrument will reliably dilate a 2-3 mm pupil to 6-7 mm. As the pupil is dilated, small hemorrhages sometimes occur at the pupil margin. These appear to be similar to those seen with the other pupil dilators. I have never seen this progress to be a problem. This instrument has been used with topical anesthesia without causing patient discomfort.

Post-operatively, all of our pupils have returned to near normal size. Frequently the pupil is irregularly round, similar to the changes seen with the use of the flexible iris retractors.

In summation, the mechanical pupil dilator will reliably enlarge the pupil in timely and cost effective way without requiring additional incisions. Due to the delicate mechanism, the instrument must be meticulously cleaned of viscoelastic after each use.

I believe this instrument represents the final solution to small pupils."

Cecil C. Beehler, M.D.

