Several new classes of eye drugs over the last few years have had a dramatic effect on eye pressure control, reducing the need for surgery. The four classes of drugs used include:

1. Prostaglandins (increases fluid draining out of the eye)

2. Carbonic anhydrase inhibitors (works by reducing aqueous secretion "turning off the tap")

3. Beta blockers (works by reducing aqueous secretion "turning off the tap")

4. Alpha blockers (dual mechanism of action)

More recently, a new class of glaucoma drug has been developed. These are known as Rho kinase, or ROCK inhibitors. ROCK inhibitors have been shown to increase aqueous outflow by relaxing cells
in the trabecular meshwork and increasing the spaces between them. There also may be some "neuroprotective" benefit. Other drug classes on the horizon include an adenosine-1 agonists. Interestingly some of these drugs may be available as subtenons inserts, meaning that the drops do not need to be instilled but can be implanted just inside the lid / around the eye.