

**SOPHIE BAKRI:** This talk is about the vitreoretinal management of surgical complications arising from anterior segment surgery. So as you know, any surgery can have complications, and humility is just one surgery away. Also bear in mind that two wrongs don't make a right. So the goal of the talk is to try to tell you, you know, how to attempt to fix things if something does go wrong.

So there can be complications from cataract surgery. And typically, they're retained lens fragments or dislocated IOL. Glaucoma complications can be numerous, but amongst them are choroidal folds from hypotony. And any surgery can cause suprachoroidal hemorrhage, retinal detachment, cystoid macular edema, or endophthalmitis. So I'm going to start by talking about the management of retained lens during cataract surgery.

So if the lens drops and vitreous prolapses into the anterior chamber, you need to do an anterior vitrectomy and make sure there's no vitreous adherent to the wound. And one way you can do this is by using diluted triamcinolone, like one to nine dilution in balanced salt solution, and inject it into the anterior chamber so that you can visualize the vitreous fibers.

Now, if there's a bag, and if you think it's stable, then try to place an intraocular lens. If there's a sulcus and you think that you can get it in the sulcus and it's going to be stable and not drop, then certainly sulcus placement is an option. If the cornea is OK, you can also place an anterior chamber lens. But remember, it's also OK to leave the patient aphakic.

Please avoid silicone lenses. Patients with retained lenses are at higher risk of needing vitreous retinal surgery from retinal detachment. And often, they may need silicone oil. And the oil sticks to the silicone lens. Also avoid a single piece haptic IOL in the sulcus, because this can cause UGH syndrome.

So always close the wound. I know often it looks like it's self-sealing, but once you've put the anterior vitrectomy in there, it won't be self-sealing. It's always more fragile than you think. So please just place a stitch.

Now, there is a procedure known as posterior assisted levitation that's widely known that way. In the cataract literature, we call it fishing. Please avoid this. This actually works. It's very successful initially. But it increases the risk of retinal detachment at a later stage. So please, leave the fishing to the vitreoretinal surgeons. For anybody that doesn't recognize this person, he is Michael's co-director.

So this allows us to remove the traction by vitrectomy, and to work to visualize the peripheral retina with wide-angle viewing. Also, with the excellent [INAUDIBLE] we have from the machines, it allows us to control the [INAUDIBLE] in the posterior segment.

Now in terms of retained lens fragments, if they're very small pieces of cortex, then you need to control the inflammation. And you can do that using prednisolone acetate drops and NSAID drops. And if they're large, whether they're cortical or nuclear, please refer. Monitor also the patient for CME, retinal detachment, and intraocular pressure. Patients tend to do poorly when they have uncontrolled inflammation that increases inflammation in the eye. Cystoid edema increases the risk of retinal detachment, increases the risk of PVR. And that's when patients do poorly.

Now in terms of timing of referral, this is something that there's not a lot of literature about. But it doesn't have to be the same day. Now, most of the cataract surgeons will operate out of an ASC that's independent from where the retinal surgeons operate. So although you may think it'd be easy to call the retinal surgeon in, don't forget that the retinal surgeon doesn't often have a relationship with that patient, so may be reluctant to go in, even if you're located in the same place.

So when you see the patient post-op and explain everything, learn the lay of the land. Are they small or are they large pieces, as we discussed. Does the patient have any co-morbidities. Now, if they have diabetes or uveitis, these are patients that are going to do worse, so please refer them earlier because, again, they're more likely to get inflammation, which is going to destroy the eye.

So control the intraocular pressure and control the inflammation. And if you're controlling the pressure, you're controlling the inflammation, and the cornea is clear, then I think it's time to consider a referral for a consult.

Another thing that can occur is that the IOL that you place may dislocate. And there were many reasons for this.