



Dot.
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I have no financial interests or relationships to disclose



Hypermature Intumescent White Cataract

- Cortical mature cataract has opaque, milky, white (potentially) liquified cortex
- Hydration of the lens cortex
- Cortical fibers become swollen and milky white
- Either traumatic rent in the capsule or aqueous imbibed through the ordinarily semipermeable lens capsule
- Lens swells, inducing **increased endocapsular pressure**
- **Capsular stretch**

*Masket S, in: Complications in Phacoemulsification
Fishkind WJ, Ed. Thieme, New York Stuttgart, 2002*

Hypermaturation White Cataract

Capsulorrhexis

- Capsule puncture is critical:
 1. High intracapsular pressure
 2. After puncture, liquified cortex may **escape** and mix with the aqueous
 3. Increase in pressure is anterior and posterior to the nucleus, and that leads to an endocapsular nuclear block

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Fishkind WJ, Ed. Thieme, New York Stuttgart, 2002*

Chakrabarti A, Journal of Cataract and Refract Surg, 2000

Hypermature White Cataract

Capsulorrhexis

3. Lens content will follow the pressure gradient, both anteriorly and posteriorly
4. Capsule may be very **friable** and may readily explode, **tearing to the equator** because of its stretch
5. Tear will run also on posterior capsule: **Argentinian flag sign**
 - Incomplete capsulorrhexis in 28.3% of cases

Chakrabarti A, Journal of Cataract and Refract Surg, 2000

Osher, RH, AAO DVD series – Complications during cataract surgery

AC, Giant Retinal Tear

- 40 y.o. white male
- High **myopia**
- Previous LASIK, OU
- **Giant retinal tear** on 09/2009, macula on
- VA 20/50 -3.25 -1.25 (155)
- TPPV, silicone oil
- 360° laser barrage
- Silicone oil removal on 03/2010...
- Totally white cataract developed: 11/2010 VA 20/100

White Intumescent Cataract: Surgical Strategy

- **Anterior capsulorrhexis** is the most challenging aspect of the surgery
- Slightly longer tunnel
- Carefully pressurize the eye
(cohesive OVD, i.e., Healon 5)
- Capsule needs to be stained
- Carefully puncture the anterior capsule
- Aspirate immediately fluid if leaks
- CCO

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Fishkind WJ, Ed. Thieme, New York Stuttgart, 2002*

Chakrabarti A, Journal of Cataract and Refract Surg, 2000

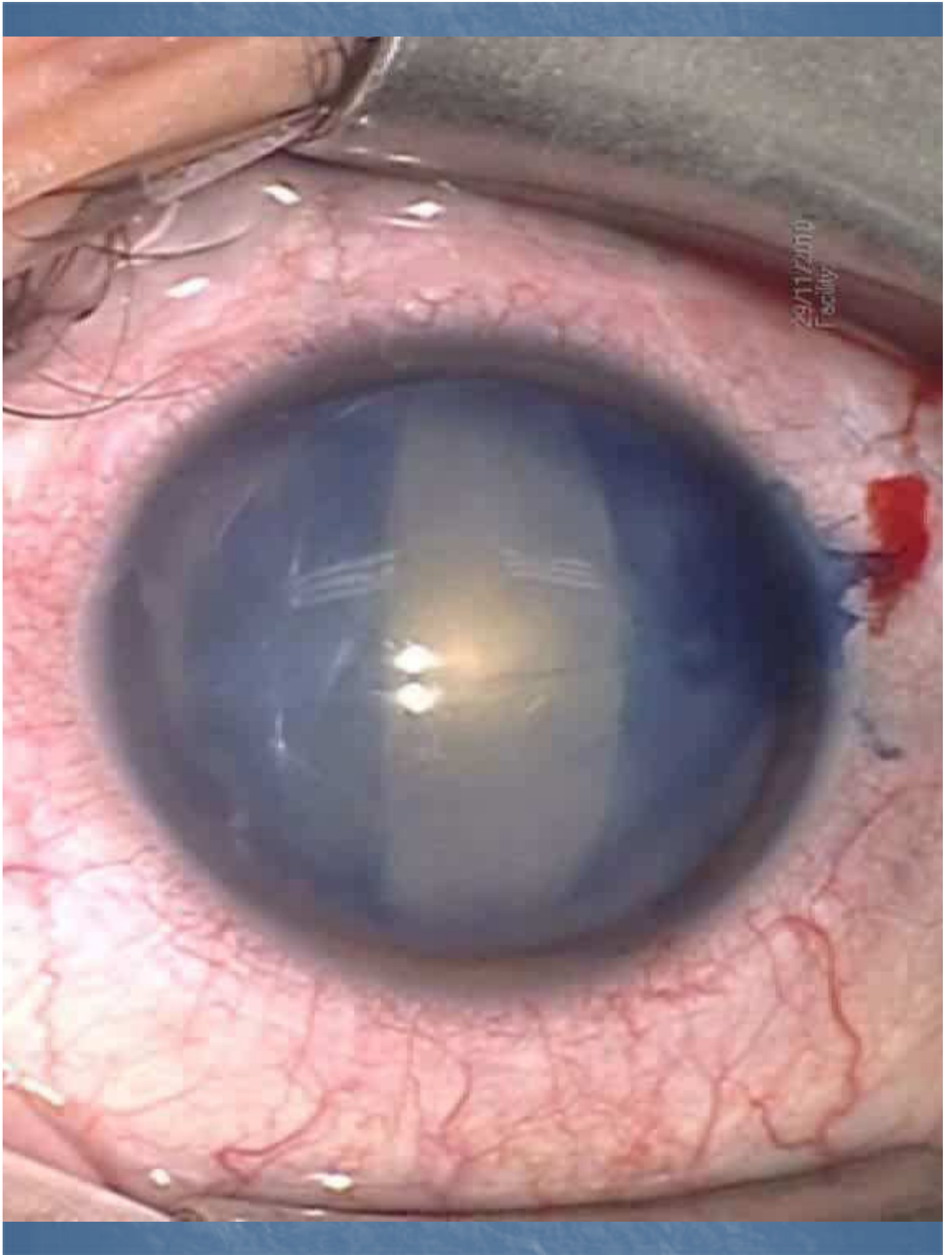
Arshinoff, Steve A, in: Curbside Consultation in Cataract Surgery

Chang DF, Ed. Slack Inc., Thorofare, NJ, 2007

My Patient

- No vitreous, reduced posterior pressure
- Longer tunnel
- Pressurized with Viscoat
- Trypan blue
- Careful 30 G needle puncture in the middle of the capsule, ready to aspirate and...

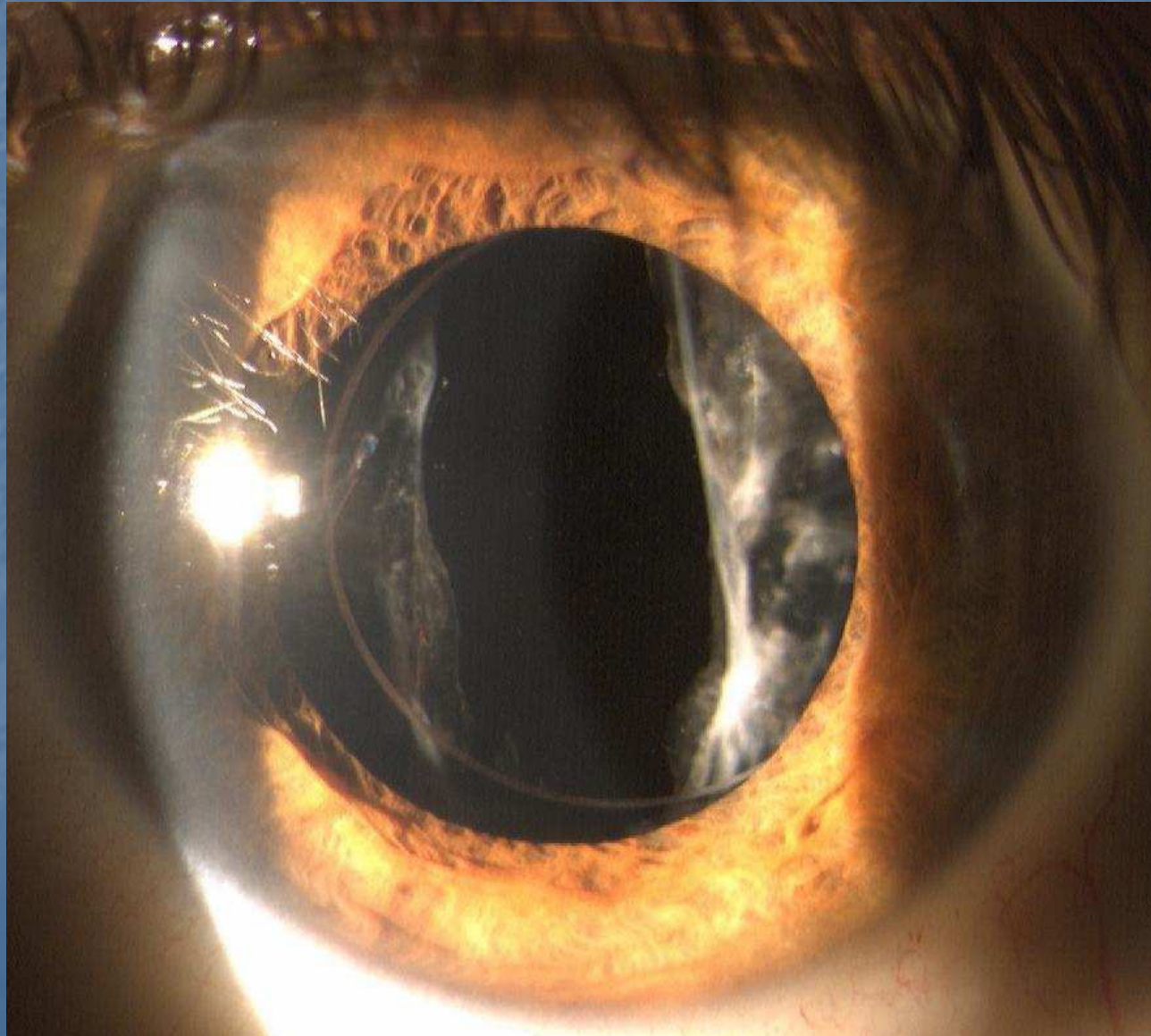




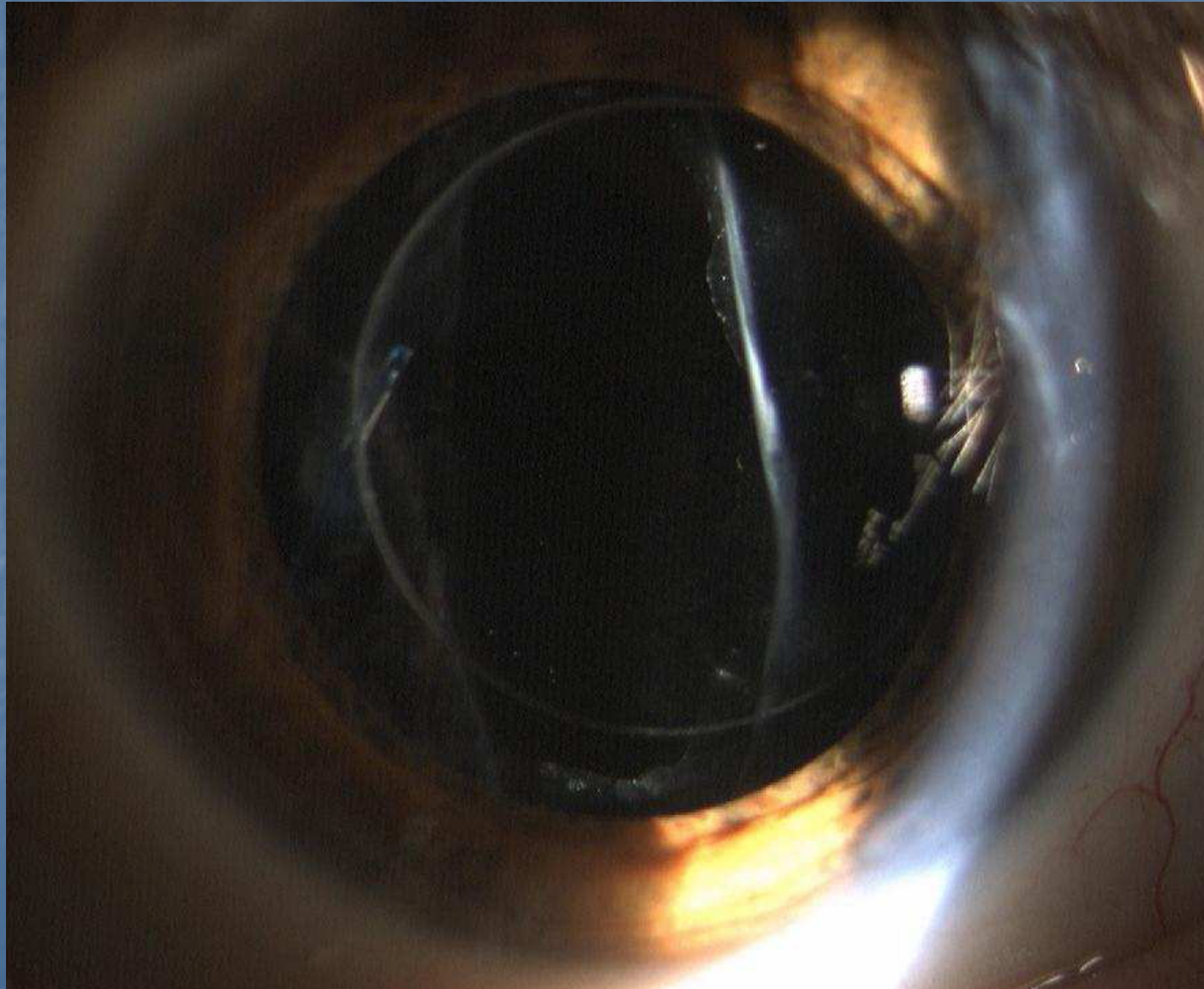
IOL

- + 14.00 D SA60AT converted to +14.50 MA60AC
- Haptics placed in the sulcus
- In the area of possible greater zonular resistance
- VA 20/40 -1.00
- And... the patient, six months later, wants to run !
- Two-month interval anterior segment photograph

6 Months Postop



8 Months Postop



Hypermaturation Intumescent White Cataract

Precautions

- Overfill the anterior chamber with cohesive OVD to flatten anterior capsule
- Relieve intracapsular pressure
 - Side port incision needle to puncture capsule, readily aspirate without decompressing anterior chamber

• *Tija KF, Cataract & Refractive Surgery Europe, Jul/Aug 2011*

Hypermature Intumescent White Cataract

Precautions

- If anterior chamber ruptures:
 - Lower the bottle
 - Remember that posterior capsule is broken as well
 - No hydrodissection
 - Remember that cortex is soft
 - Moderate fluidics setting
 - Three-piece IOL in the sulcus

Tija KF, Cataract & Refractive Surgery Europe, Jul/Aug 2011