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Curbside Consultation

OPHTHALMOLOGY

Series Editor: David F. Chang, MD

The new **Curbside Consultation Series** is designed to efficiently provide ophthalmologists with practical, to-the-point, evidence-based answers to the questions most frequently asked during informal consultations between colleagues.

Each specialized textbook included in the **Curbside Consultation Series** offers quick access to current medical information with the ease and convenience of a conversation. Expert consultants who are recognized leaders in their fields provide their advice, preferences, and opinions to address 49 clinical dilemmas that practicing ophthalmologists often face.

Written with a similar reader-friendly Q&A format and including images, diagrams, and key references, each textbook in the **Curbside Consultation Series** will serve as a concise, go-to reference for the practicing ophthalmologist or resident.

Series topics and lead editors include:

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- Cornea and external disease, *Eduardo C. Alfonso, MD*
- Glaucoma, *Dale K. Heuer, MD*
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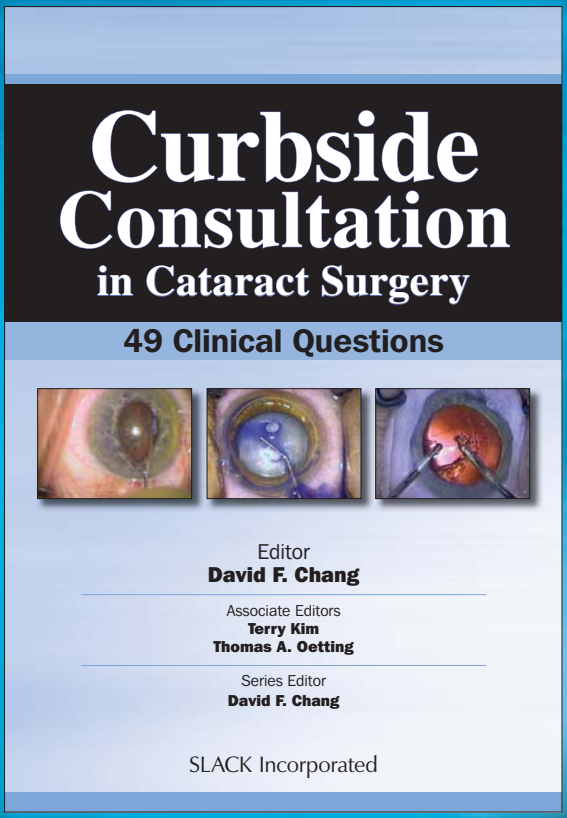

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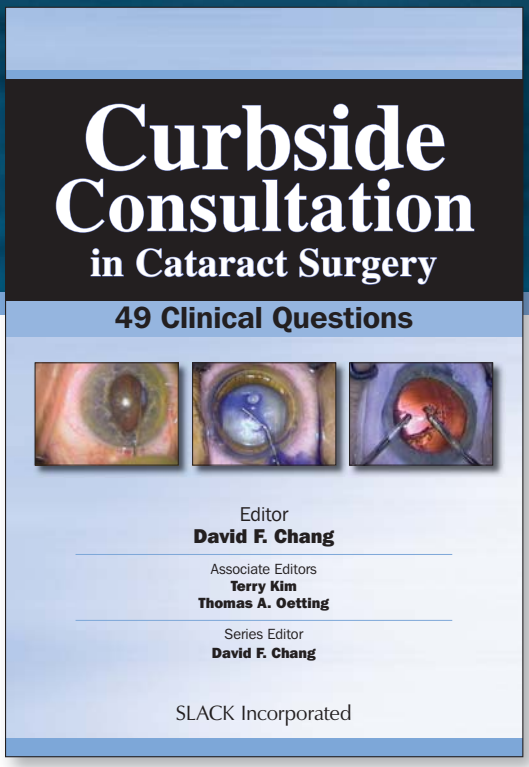

David F. Chang, MD
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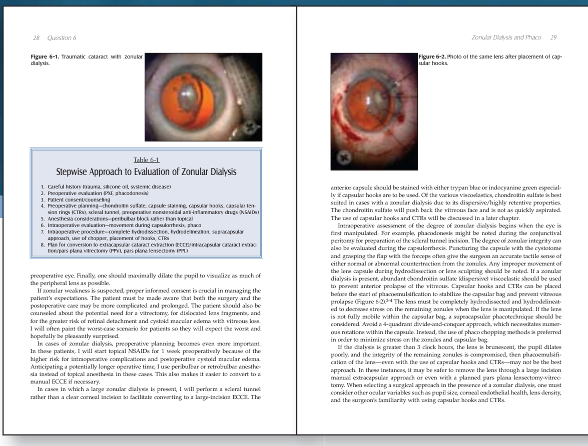
Looking for quick answers to your cataract surgery questions?

Seeking evidence-based advice for complicated cases?

Then Curbside Consultation in Cataract Surgery is for you.

Curbside Consultation in Cataract Surgery: 49 Clinical Questions provides quick and direct answers to the thorny questions most commonly posed during a "curbside consultation" between surgical colleagues.

With how large a zonular dialysis can phaco be performed?



28 Question 6

Figure 6-1. Traumatic cataract with zonular dialysis.

Table 6-1

Stepwise Approach to Evaluation of Zonular Dialysis

1. Careful history (trauma, silicone oil, systemic disease)
2. Preoperative evaluation (PXF, phacodonesis)
3. Patient consent/counseling
4. Preoperative planning—chondroitin sulfate, capsule staining, capsular hooks, capsular tension rings (CTRs), scleral tunnel, preoperative nonsteroidal anti-inflammatory drugs (NSAIDs)
5. Anesthesia considerations—peribulbar block rather than topical
6. Intraoperative evaluation—movement during capsulorrhexis, phaco
7. Intraoperative procedure—complete hydrodissection, hydrodelineation, supracapsular approach, use of chopper, placement of hooks, CTRs
8. Plan for conversion to extracapsular cataract extraction (ECCE)/intracapsular cataract extraction/pars plana vitrectomy (PPV), pars plana lensectomy (PPL)

preoperative eye. Finally, one should maximally dilate the pupil to visualize as much of the peripheral lens as possible.

If zonular weakness is suspected, proper informed consent is crucial in managing the patient's expectations. The patient must be made aware that both the surgery and the postoperative care may be more complicated and prolonged. The patient should also be counseled about the potential need for a vitrectomy, for dislocated lens fragments, and for the greater risk of retinal detachment and cystoid macular edema with vitreous loss. I will often paint the worst-case scenario for patients so they will expect the worst and hopefully be pleasantly surprised.

In cases of zonular dialysis, preoperative planning becomes even more important. In these patients, I will start topical NSAIDs for 1 week preoperatively because of the higher risk for intraoperative complications and postoperative cystoid macular edema. Anticipating a potentially longer operative time, I use peribulbar or retrobulbar anesthesia instead of topical anesthesia in these cases. This also makes it easier to convert to a manual ECCE if necessary.

In cases in which a large zonular dialysis is present, I will perform a scleral tunnel rather than a clear corneal incision to facilitate converting to a large-incision ECCE. The

Zonular Dialysis and Phaco 29

Figure 6-2. Photo of the same lens after placement of capsular hooks.

anterior capsule should be stained with either trypan blue or indocyanine green especially if capsular hooks are to be used. Of the various viscoelastics, chondroitin sulfate is best suited in cases with a zonular dialysis due to its dispersive/highly retentive properties. The chondroitin sulfate will push back the vitreous face and is not as quickly aspirated. The use of capsular hooks and CTRs will be discussed in a later chapter.

Intraoperative assessment of the degree of zonular dialysis begins when the eye is first manipulated. For example, phacodonesis might be noted during the conjunctival peritomy for preparation of the scleral tunnel incision. The degree of zonular integrity can also be evaluated during the capsulorrhexis. Puncturing the capsule with the cystotome and grasping the flap with the forceps often give the surgeon an accurate tactile sense of either normal or abnormal countertraction from the zonules. Any improper movement of the lens capsule during hydrodissection or lens sculpting should be noted. If a zonular dialysis is present, abundant chondroitin sulfate (dispersive) viscoelastic should be used to prevent anterior prolapse of the vitreous. Capsular hooks and CTRs can be placed before the start of phacoemulsification to stabilize the capsular bag and prevent vitreous prolapse (Figure 6-2).[2-4] The lens must be completely hydrodissected and hydrodelineated to decrease stress on the remaining zonules when the lens is manipulated. If the lens is not fully mobile within the capsular bag, a supracapsular phacotechnique should be considered. Avoid a 4-quadrant divide-and-conquer approach, which necessitates numerous rotations within the capsule. Instead, the use of phaco chopping methods is preferred in order to minimize stress on the zonules and capsular bag.

If the dialysis is greater than 3 clock hours, the lens is brunescent, the pupil dilates poorly, and the integrity of the remaining zonules is compromised, then phacoemulsification of the lens—even with the use of capsular hooks and CTRs—may not be the best approach. In these instances, it may be safer to remove the lens through a large incision manual extracapsular approach or even with a planned pars plana lensectomy-vitrectomy. When selecting a surgical approach in the presence of a zonular dialysis, one must consider other ocular variables such as pupil size, corneal endothelial health, lens density, and the surgeon's familiarity with using capsular hooks and CTRs.

Sample pages of chapter six: see how photos, tables and detailed composition help demonstrate surgical pearls.

Dr. David F. Chang, and associate editors Dr. Terry Kim and Dr. Thomas A. Oetting, have designed this unique reference in which 49 of the top cataract consultants in North America offer expert advice, preferences, and opinions on tough clinical questions commonly associated with cataract surgery. The unique Q&A format provides quick access to current information related to cataract surgery with the simplicity of a conversation between two colleagues. Numerous images, diagrams, and references are included to enhance the text and to illustrate surgical pearls.

Curbside Consultation in Cataract Surgery: 49 Clinical Questions provides information basic enough for residents while also incorporating expert pearls that even high-volume cataract surgeons will appreciate. General ophthalmologists, residents, and cataract specialists alike will benefit from the user-friendly and casual format and the expert advice contained within.

Some of the questions that are answered:

- What is the best way to manage IFIS?
- What should I do differently with a posterior polar cataract?
- When and how do I stain the vitreous with intracameral Kenalog?
- Based about the ESCRS Randomized Study, should I use intracameral antibiotics? Which agent?
- Can I mix different multifocal IOLs, or multifocal with monofocal IOLs?

Contributing Authors

Iqbal Ike K. Ahmed
Lisa B. Arbisser
Steve A. Arshinoff
Rosa Braga-Mele
Scott E. Burk
David F. Chang
Stanley Chang
Robert J. Cionni
Garry P. Condon
Alan S. Crandall
Elizabeth A. Davis
Eric D. Donnenfeld
I. Howard Fine
William J. Fishkind
Luther L. Fry
Johnny Gayton
James P. Gills
Howard V. Gimbel
Bonnie An Henderson
Warren E. Hill
Jack T. Holladay
Terry Kim
Douglas D. Koch
Paul Koch
Manus C. Kraff
Stephen Lane
Richard A. Lewis
Richard L. Lindstrom
Richard J. Mackool
Francis S. Mah
Nick Mamalis
Samuel F. Masket
Kevin M. Miller
Louis D. "Skip" Nichamin
Thomas A. Oetting
Randall J. Olson
Robert H. Osher
Mark Packer
Francis W. Price, Jr
Michael B. Raizman
Kenneth J. Rosenthal
Thomas Samuelson
Barry S. Seibel
Bradford J. Shingleton
Kerry D. Solomon
Walter J. Stark
Roger F. Steinert
R. Bruce Wallace III
Kevin L. Waltz