

# Double capsular tension segment (CTS) implantation in a case of microspherophakia



M. SAMEH EL-AGHA, MD, FRCS(ED)

PROFESSOR OF OPHTHALMOLOGY, CAIRO UNIVERSITY, EGYPT

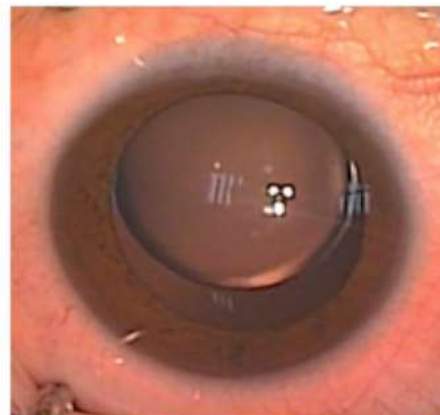
MEDICAL DIRECTOR, CAIRO UNIVERSITY EYE BANK

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## Case presentation

- 8-year-old boy
- Progressive diminution of vision for several years
- UCVA: CF
- BCVA 0.2 (-11.00 sphere)
- After pupil dilatation: bilateral extreme phacodonesis with decreased overall diameter of lens
- Otherwise normal exam
- One younger sibling with same findings (but less severe)

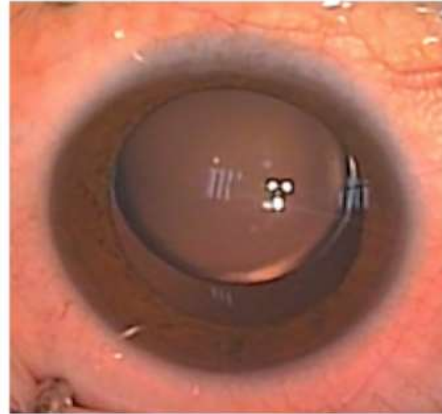


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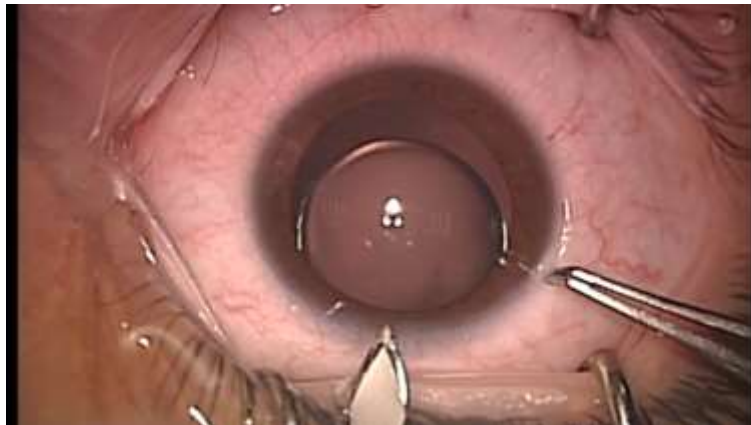
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## Options?

- Logical option: lensectomy/anterior vitrectomy followed by:-
  - Iris claw lens in AC (endothelial cell loss)
  - Iris claw lens in PC (dislocation!)
  - Iris suture-fixated PC IOL (suture erosion)
  - Scleral suture fixation of PC IOL (Goretex 8/0 or prolene 9/0)
  - 3-piece PC IOL with exteriorization of haptics into a scleral tunnel (Scharioth, Agarwal, Yamane)
- With all of these options: violation of anterior vitreous (risk of RD)

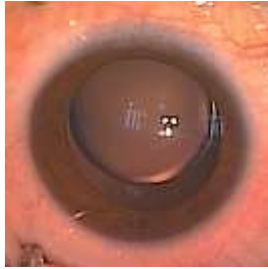


## Surgery

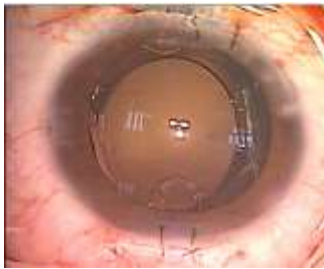


## Result of surgery

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Pre-operative:  
UCVA CF  
BCVA 0.2



End of surgery



3 months after surgery:  
UCVA 0.7  
BCVA 0.9



3 months after surgery:-  
dilated

## What did we achieve

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- IOL in the bag with excellent centration (most physiological)
- No violation of the anterior vitreous (lower risk of RD)
- Successful capsulorrhexis ensured by sequential placement of capsule retractors to provide countertraction (in lieu of zonular fibers)
- Sequential placement of 2 CTS segments is less technically challenging than placing a Cionni ring in the presence of minimal zonular support
- Placement of the IOL first provided protection during passage of needles across the AC to achieve fixation of the rings

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THANK YOU VERY MUCH  
FOR YOUR KIND  
ATTENTION