IOFBs removal
Techniques , Tips and Pitfalls

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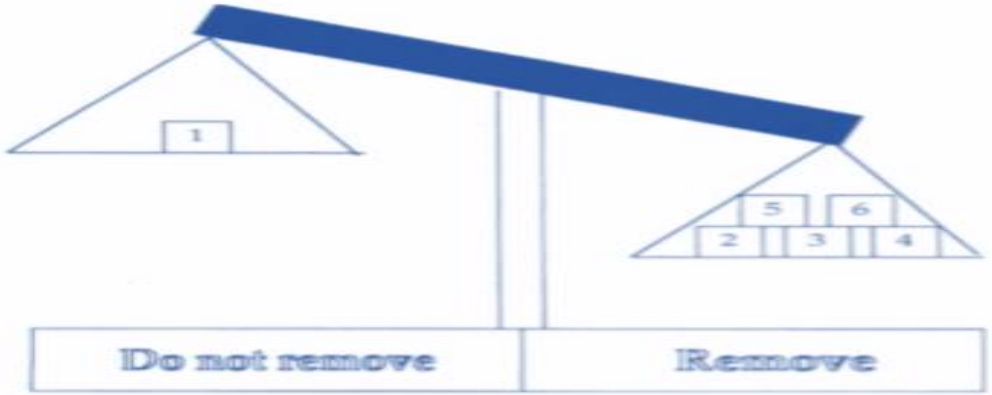
Financial Disclosure

No financial interests or relationships to disclose

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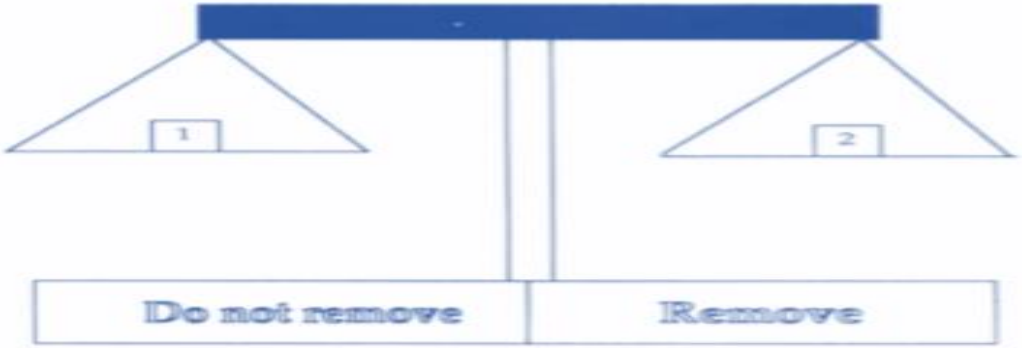
IOFB :

REMOVE OR LEAVE



1 Complications of surgery
2 Toxic effects of IOFB
3 Endophthalmitis
4 Associated tissue injuries
5 Late mechanical effects of IOFB
6 Medicolegal issues

FIGURE 24–3 Scaling the decision whether to perform surgery to remove an *acute* IOFB.



1 Acute/chronic, surgery-related complications
2 Delayed development of IOFB-related complications

FIGURE 24–4 Scaling the decision whether to remove an IOFB, which causes no visual complaints, no signs of metallosis, and no electrophysiologic alterations.

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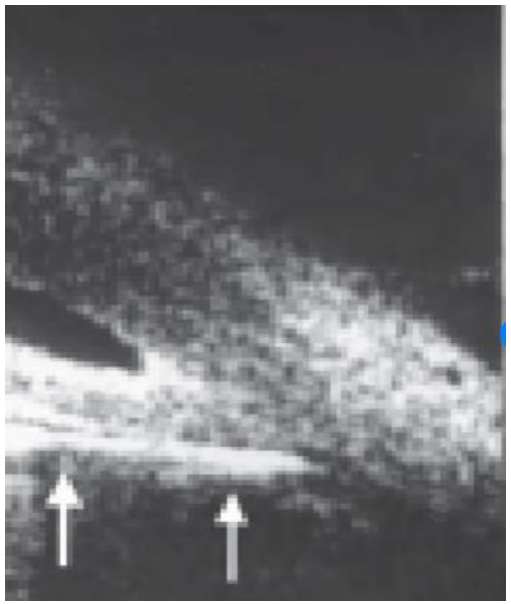
WOULD YOU REMOVE THIS

METALIC RETRO IRIS FB

35 YEARS OLD

ONE EYE ; 10/10 VISION

STABLE OVER 4 YEARS



SAN

Beirut 03/07/2014

Beirut : 09/04/2015
Patient name :Manhal Ibrahim.
B.E.S.H. no :39858.

Electro-retino-gram :

- *ERG cone white flash :Slightly reduced*
- *ERG cone 30Hz flicker :normal amplitu*
- *ERG rod white flash :slightly reduced a*
- *ERG combined rod+cone :slightly reduc*

Conclusion :

- Subnormal ERG in the left eye.
- The results are similar to the exam done in 2
- A new control after six months is recommen

Beirut : 26/04/2018
Patient name : Ibrahim Manhal.
B.E.S.H. no : 39858.
Electro retino gram :

- *ERG cone white flash : slightly reduced amplitude.*
- *ERG cone 30HZ : normal amplitude.*
- *ERG rod : slightly reduced amplitude.*
- *ERG combined cone + rod : slightly reduced amplitude.*

Conclusion :

- *stable results comparing with the test done on 09/09/2016.*

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Dr. Charles Helou.

s Helou.

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TIPS

BE COOL IF THE EYE IS WELL ORGANIZED AND NOT ASSOCIATED WITH SIGNIFICANT CONDITION

FB RELATED ENDOPHTHALMITIS MAINLY HAPPENS SOON AND NOT LATE

INNERT IOFB HAS ZERO RELATED COMPLICATIONS IF POSTERIOR LOCATED AND STABLE

NON INNERT SEEN IOFB CAN BE FOLLOWED ESP IF ENCAPSULATED AND POSTERIOR LOCATED

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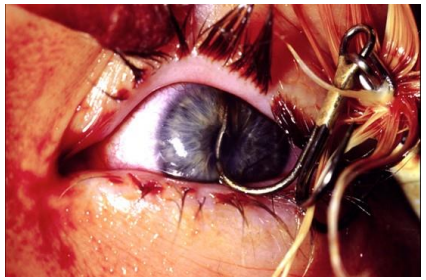
WHO ARE YOU ?

REFERAL EYE SURGEON WHO DOES PP VITRECTOMY

EYE SURGEON AT PRIMARY SITE

PITFALL :

DO NOT ATTEMPT TO REMOVE FB BEHIND THE LENS ESP IN FISHING MANNER



TIP :

DO WOUND RECONSTRUCTION WELL AND ALL WILL BE GRATFULL

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ALL WEAPONS FOR THE BATTLE OF IOFB REMOVAL

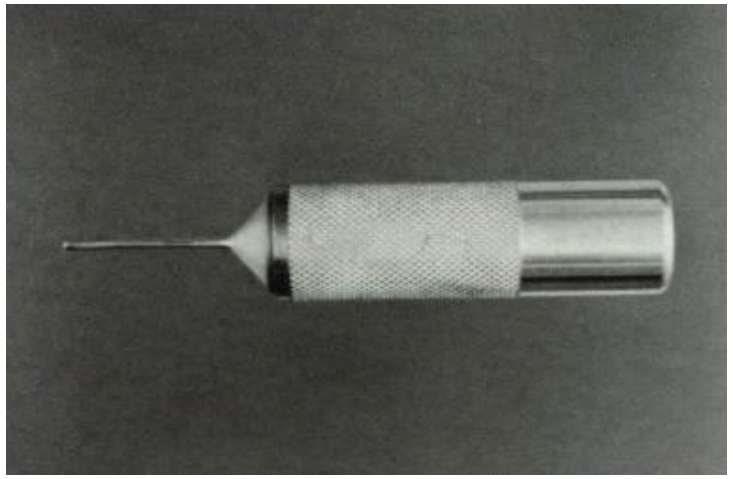


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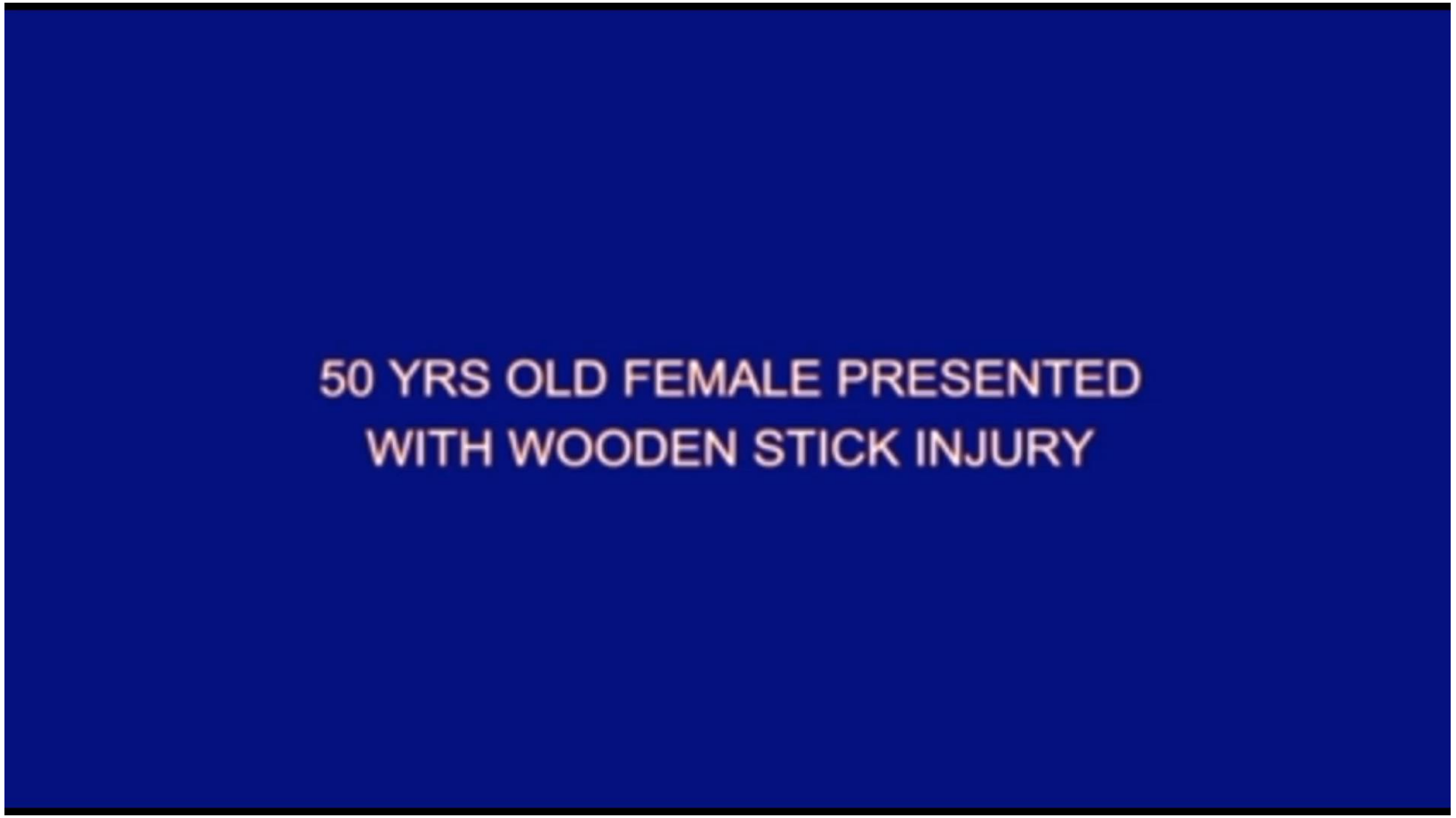






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ANTERIOR IOFB



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TIP

- WHENEVER U R DEALING WITH ANTERIOT CHANBER FB TRY TO USE VISCOELASTICS

- USE THE APPROPRIATE FORCEPS FOR THAT

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Anterior chamber FB



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TIPS

- Wide and enough EXIT incision is mandatory
- Take advantage of the iris shield by using miotics
- Choose the short path to reach the foreign body
- Choose the easy hand path to pick the foreign body and adjust your position according to that (superior , temporal)

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LENTICULAR FB



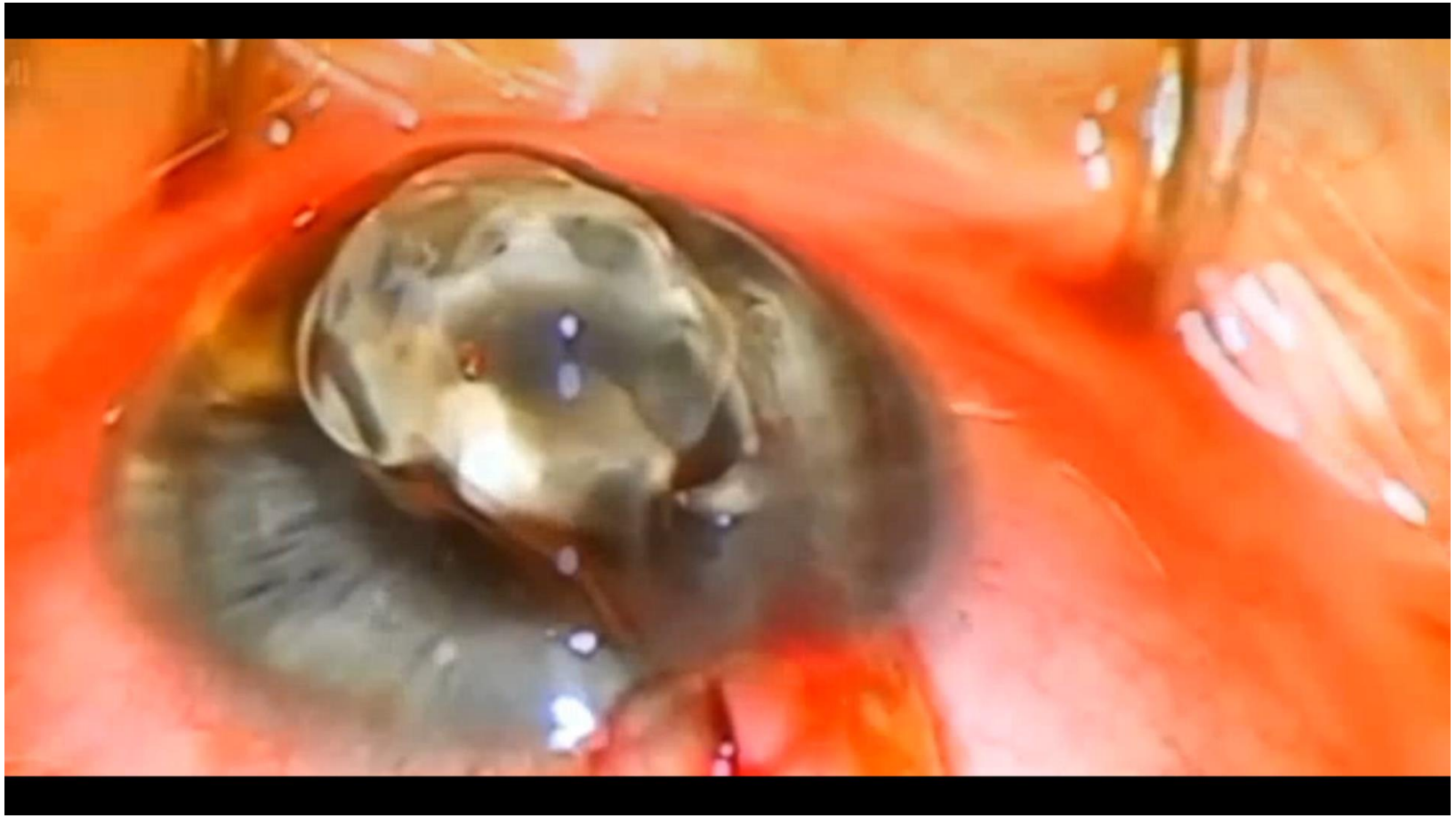
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TIPS AND PITFALLS

- Make adequate ccc if possible
- Remove the foreign body right after ccc before any hydro dissection or any additional maneuver
- Try to grasp the body of the FB even if the edge seems too tight cause it may break or cause irregularity at the exit wound

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IOFB IN THE ANGLE



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TIPS

- In selected cases u can use the IOM to bring the FB out the angle
- IOM must be placed at the nearest place to avoid damage
- In non magnatic or stuck angle FB u can use the gonioscope
- Do not pass above the crystalline lens when manipulating
- Do not go blind and do not forget miotics

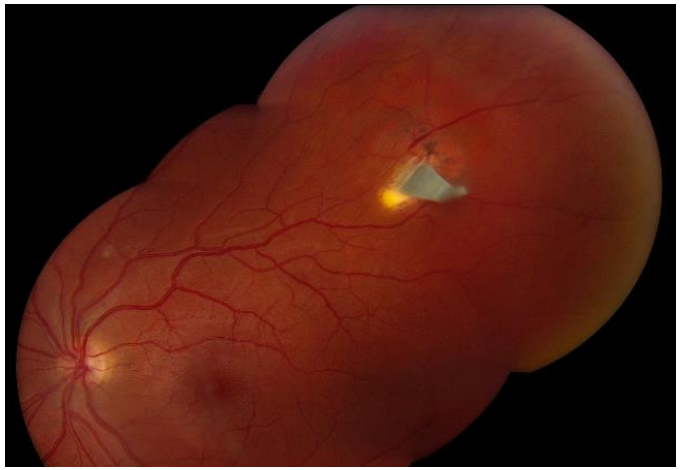
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What about the posterior IOFBs



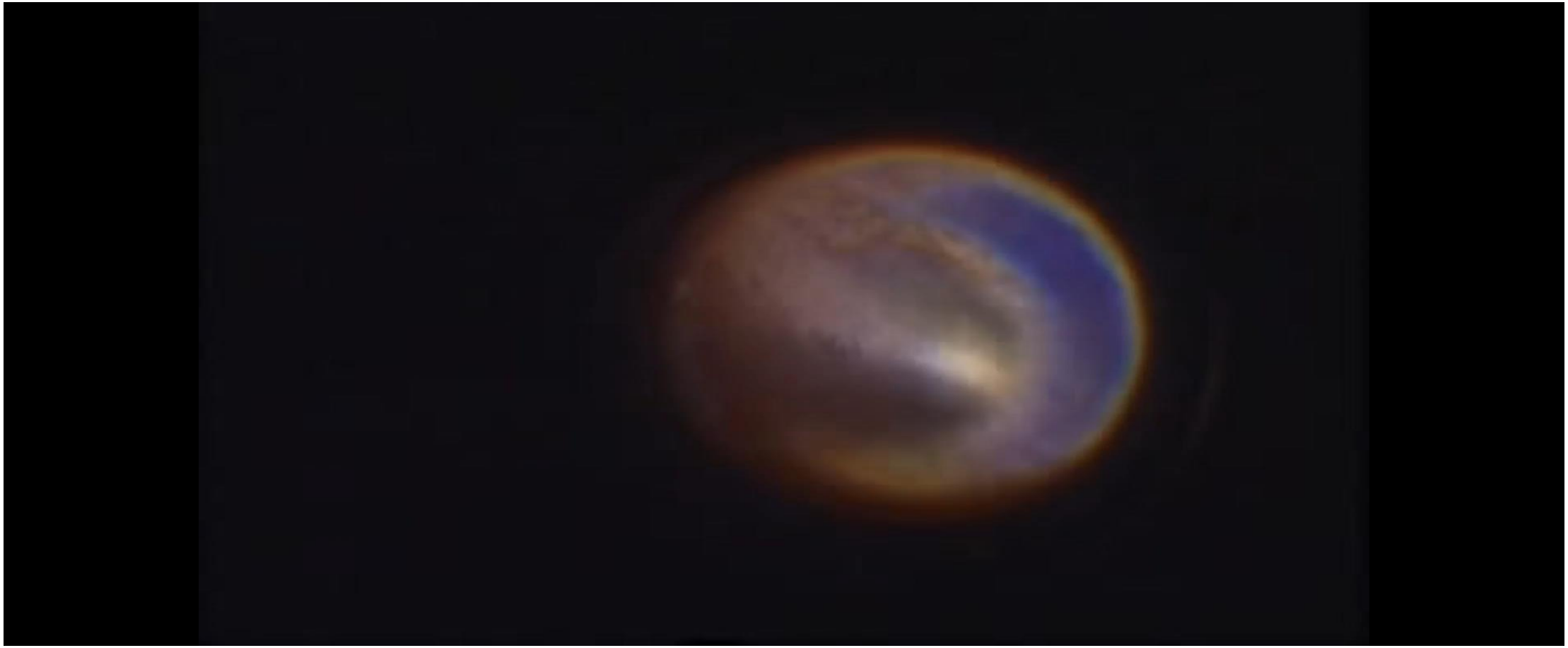






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Posterior IOFB through anterior exit



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Tips and Tricks

- Take advantage of the iris as a mid way stop
- Use the IOM even in larger IOFB but be smooth
- Get away from the infusion line flow
- High flow keeps the eye formed but be aware of the bottle at that crucial moment (check the bottle before starting the maneuver)

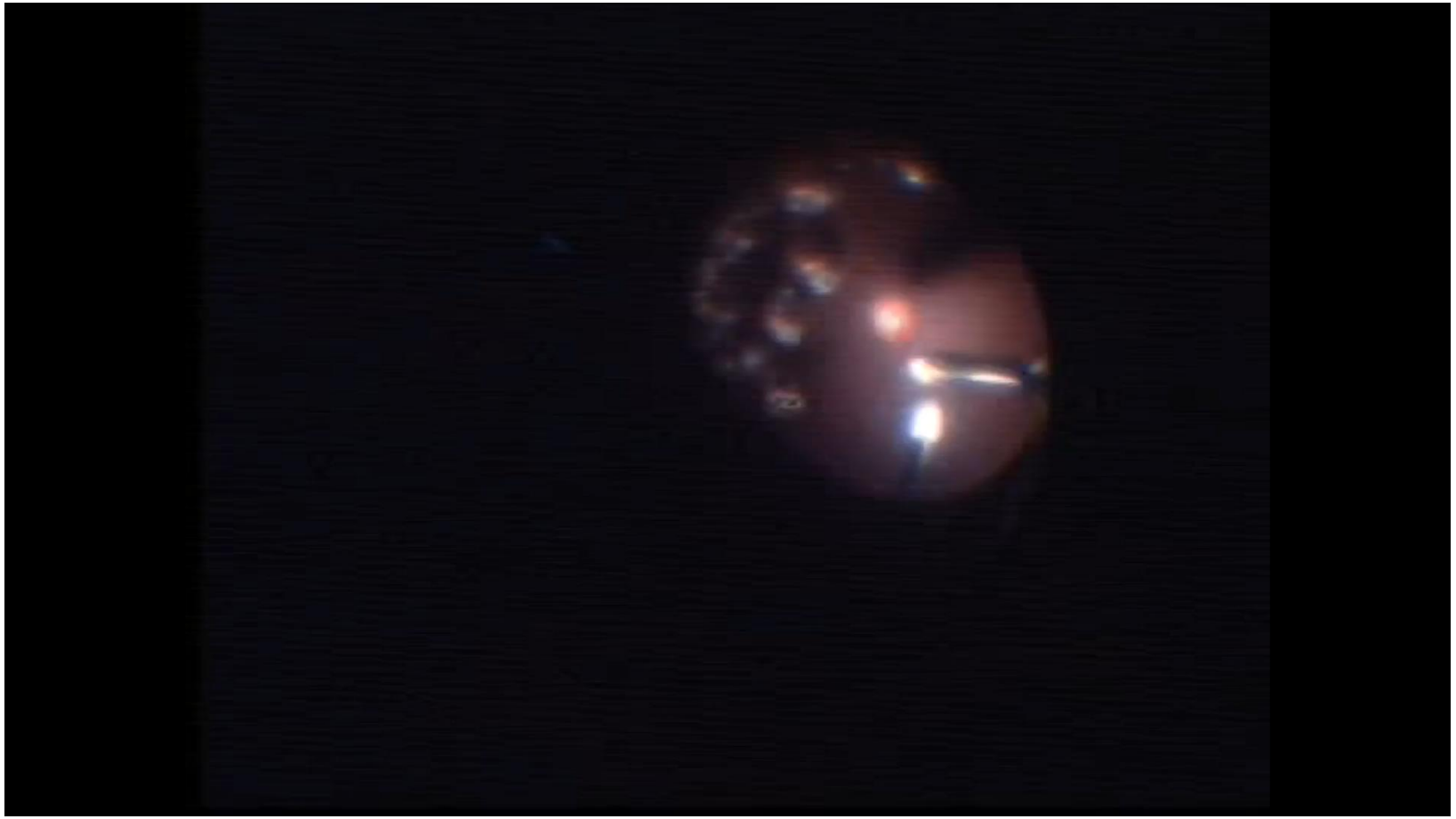
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General Concepts

- Be familiar with the mission you going thru
- Do not rely on the CTS for the intial impact place and the final place of FB
- Do not be afraid in phakic patients regarding the posterior capsule of the lens (adjust the focus , take advantage of air bubbles) but be cautious using the handshake technique
- Hold the foreign body adequately : not too tight cause : you may badly lose the FB and cause projectile intraocular trauma , you may break the FB at the point of exit , u may shorten the life of the forceps u r using

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REMOVING FB USING VITRECTOMY PROBE



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TIPS

Adequat vitrectomy esp around the FB and the track of your instruments

Leaving the posterior detached vitreous above the macula may be protective

Always indent and check the exit sclertomy site and do laser or cryo at the exit site

The air bubble may help u adjust the safty distance from the posterior capsule

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USING THE IO MAGNET WHATEVER THE SIZE WE HAVE AND FULLY GRASPING THE FB



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Tips

- Keeping the magnet helped in manipulating the eye

- Also it helped closing the scleretomy at that moment to maintain formed eye

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2 FBs AND HIGH FLOW



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2 FBs different sizes



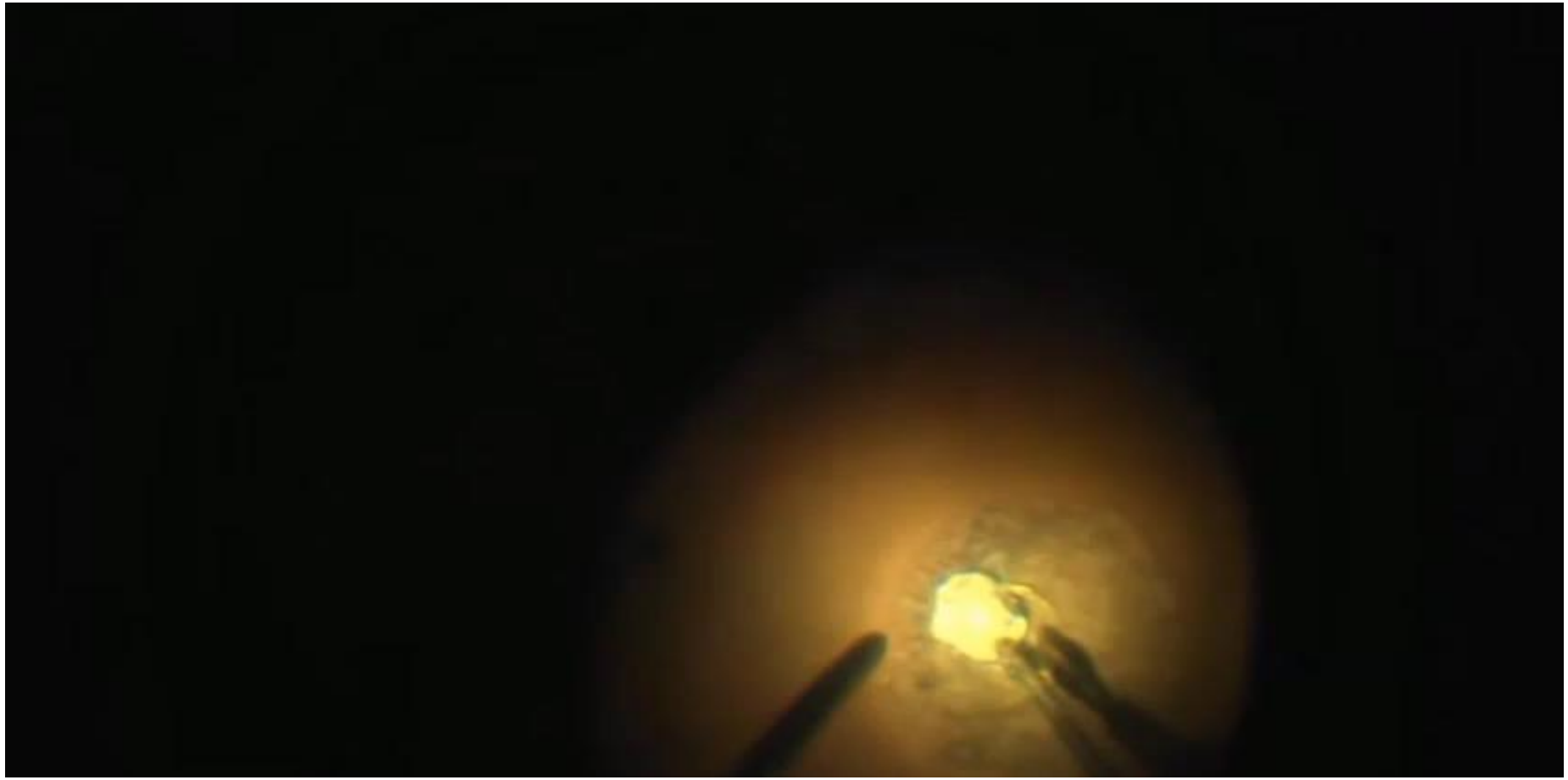
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TIPS

- BE COOL AT THE POOL !
- ADJUST THE EXIT INCISION ACCORDING TO THE FB (NOT ONE SIZE FITS ALL)
- USING VISCOLASTICS OR DKLINE OR NOTHING ! TO PROTECT THE MACULA

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PRE RETINAL LASER AND BASKET FORCEPS



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TIPS

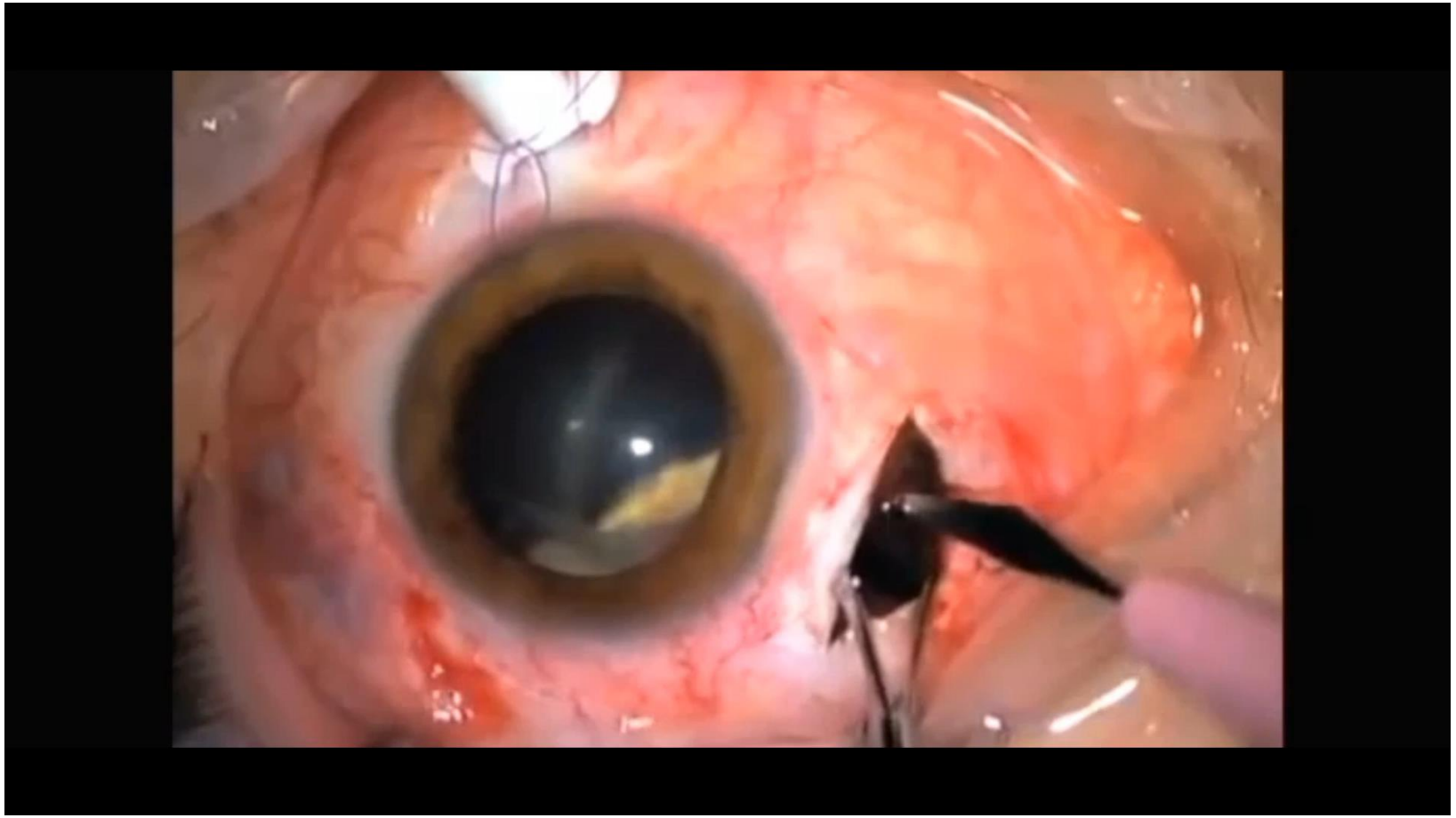
- PRE RETINAL LASER AROUND THE IMPACT SITE MAY BE GOOD IN ENCAPSULATED FBs



USING THE BASKET FORCEPS U CAN ELEVATE GENTLY THE FB WITH ONE BRANCH AND THEN GRASP

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LARGE FBs



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TIPS

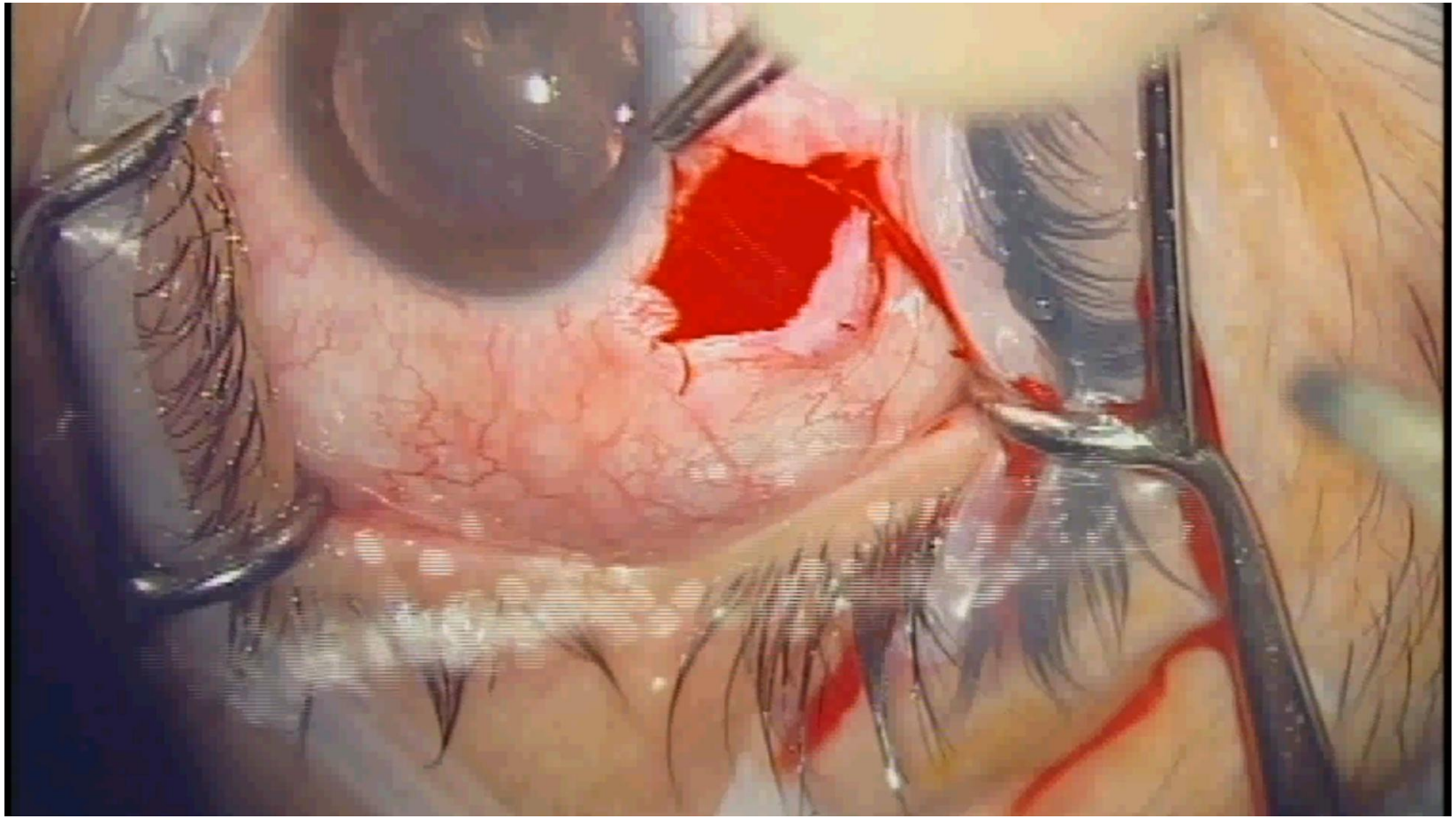
- LARGE FBs R CHALLENGING
- CASE BY CASE APPROACH
- RE CHECK THE VITEROUS ATTACHMENTS BEFOR THE TOTAL REMOVAL

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EOM AND FB REMOVAL



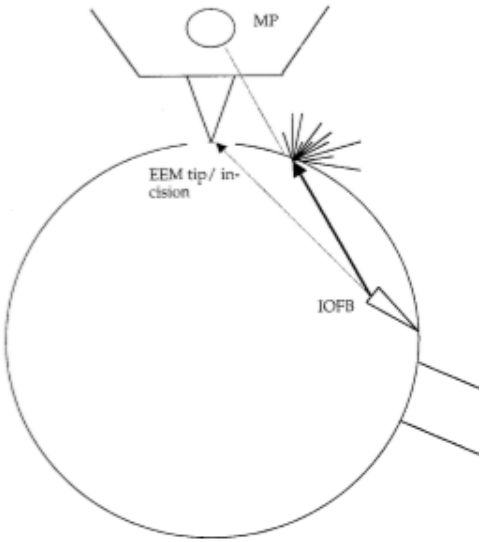
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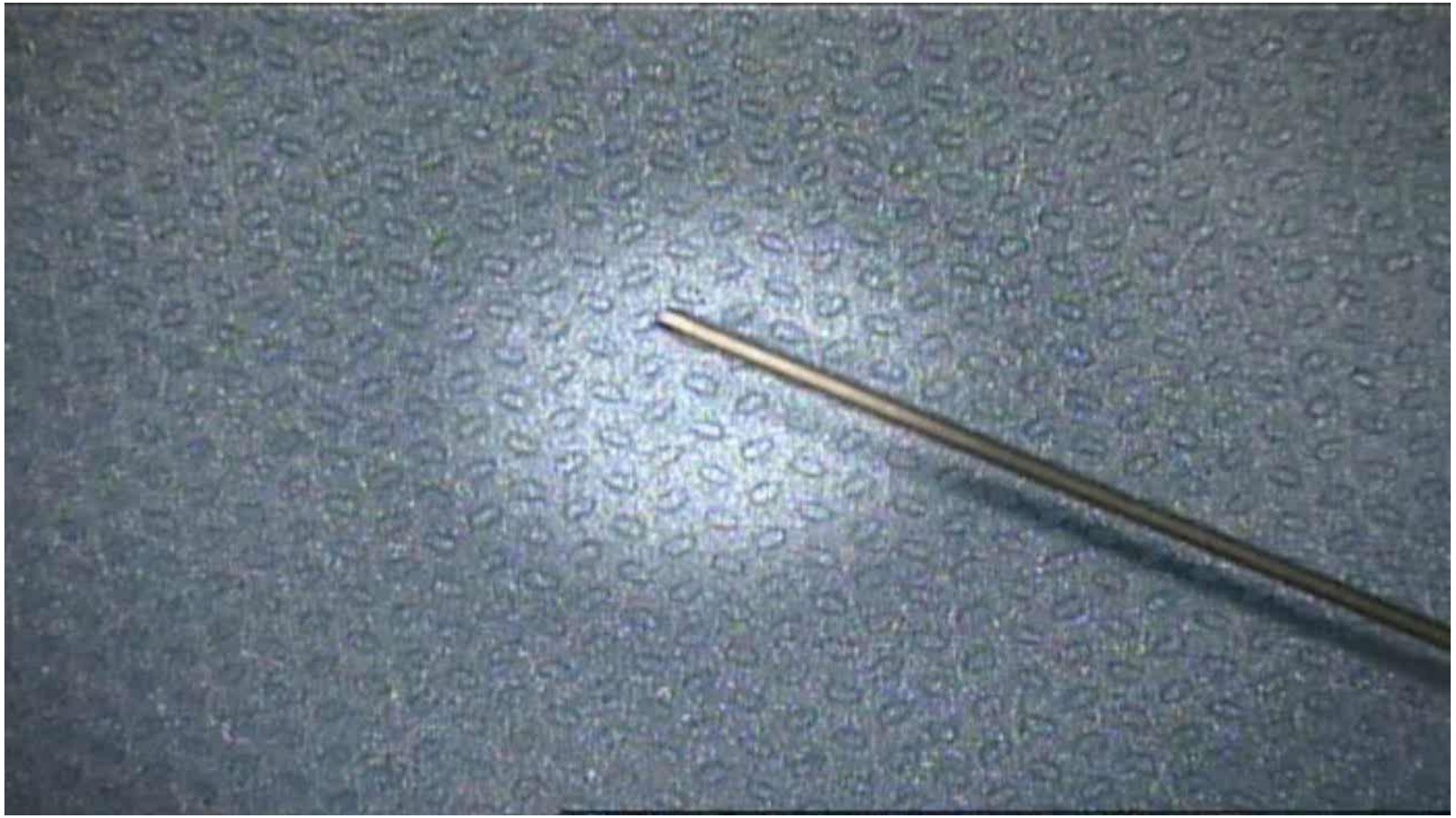
TIPS

- CASE SELECTION IS IMPORTANT
- LESS INSTRUMENTS USED
- FAST (NO INFUSION AND NO VITRECTOMY)
- EXIT WOUND LASERED OR CRYO
- ALIGN THE EOM WITH THE FB and the magnatic pole

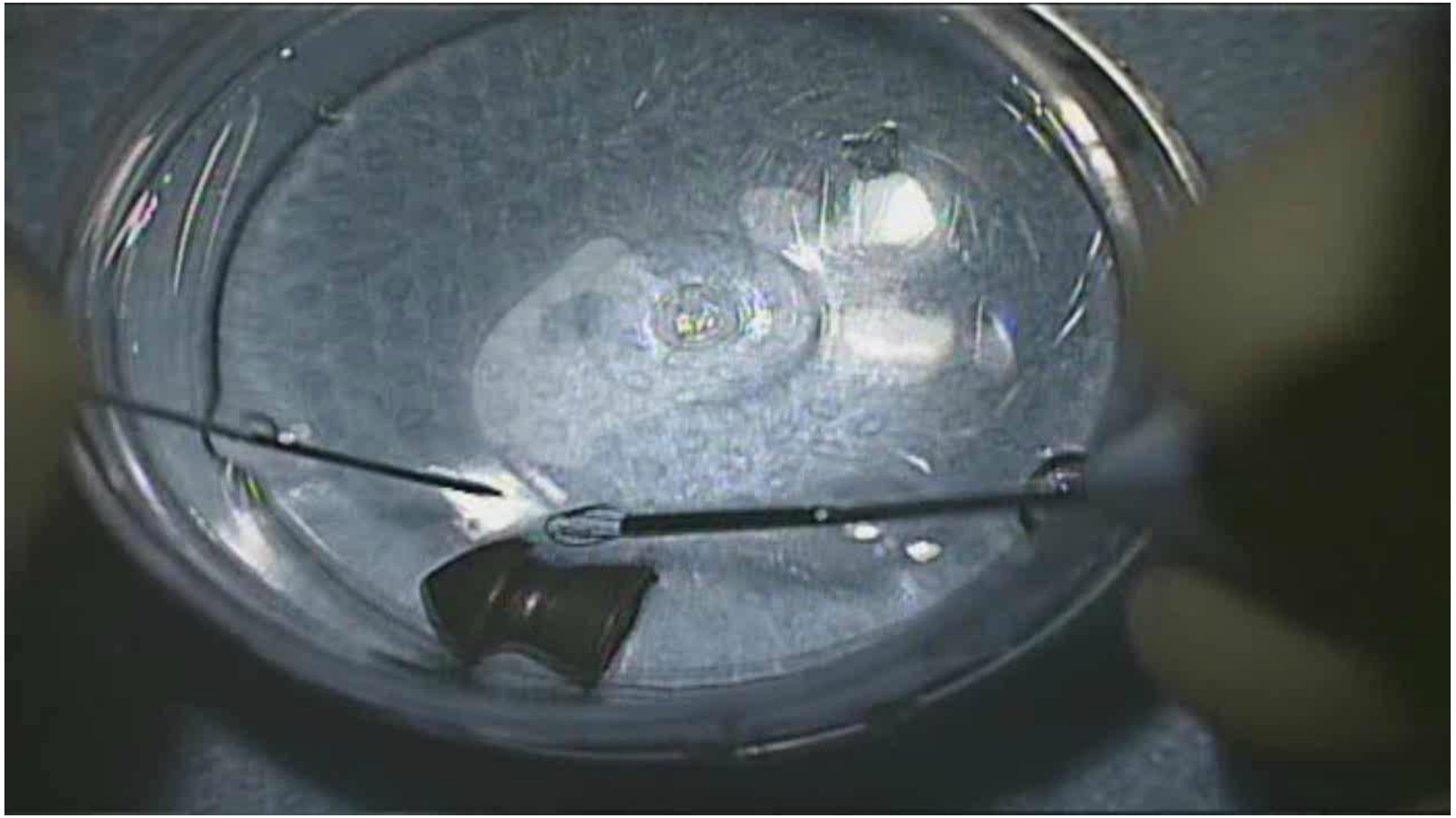


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DR NUR NICE AND EASY USE FORCEPS FOR LARGE FB



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OTHER TOOLS

Endoscope-assisted pars plana vitrectomy in severe ocular trauma

Article (PDF Available) *in* The British journal of ophthalmology 96(11):1399-403 · September 2012
with 49 Reads
DOI: 10.1136/bjophthalmol-2012-302187 · Source: PubMed

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TECHNIQUE

Fragmatome Lifting: Surgical Option for Intraocular Lens and Foreign Body Removal

Rodrigo Jorge, MD, PhD; Rubens C Siqueira, MD, PhD; José A Cardillo, MD; Rogério A Costa, MD, PhD

Ophthalmic Surgery, Lasers and Imaging Retina. 2005;36(3):261-264
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