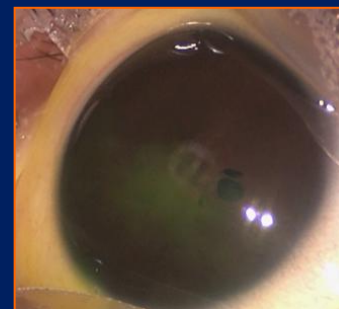


Different approaches to surgical Pupilloplasty



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INTRODUCTION

- Patients with pupil abnormalities, whether from congenital, traumatic or other causes, suffer from varying amounts of visual disability, including reduced visual acuity, glare and photophobia
- In addition, significant cosmetic issues may also be present
- When we have enough tissue, iris stroma can be stretched and handled to create a new pupillary aperture. Suture repair is an economical and promptly available surgical option.

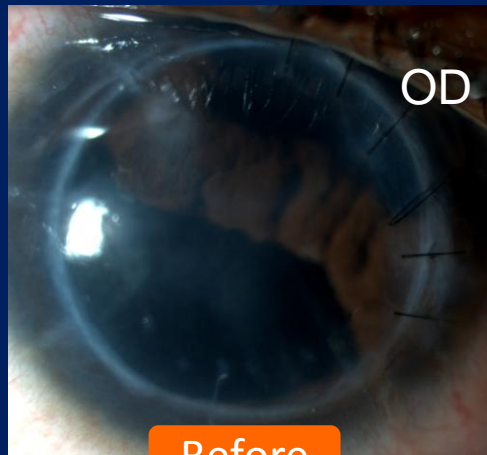
PURPOSE

To describe three different minimal invasive surgical approaches to correct traumatic and congenital pupil abnormalities

PATIENT 1



- 26 years old
- Penetrant Keratoplasty OD 8 years before
- **Traumatic aphakia, pupillary distortion with iridodialysis and parcial iris loss OD**
 - Low vision (20/80 OD)
 - Photofobia and glare

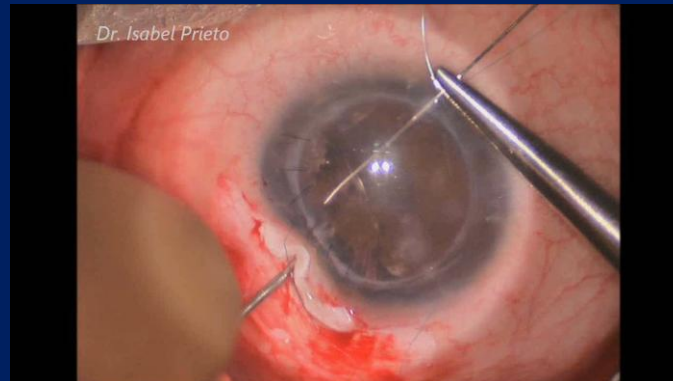


Before

Pupilloplasty was performed with several iris sutures in order to **create a central pupil**, giving support to an **anterior chamber**
Iris-Claw IOL



10-0 polypropylene suture & double long straight needle

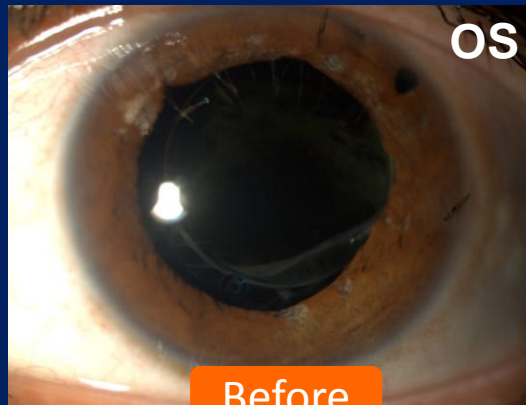


- ✓ Final BCVA: 20/32
- ✓ Less glare and photofobia
- ✓ Good aesthetic outcome

PATIENT 2



- 35 years old
- Pseudophakia OS
- **Postraumatic mydriasis OS**
 - Reduced visual acuity (20/32) OS
 - Photophobia and glare



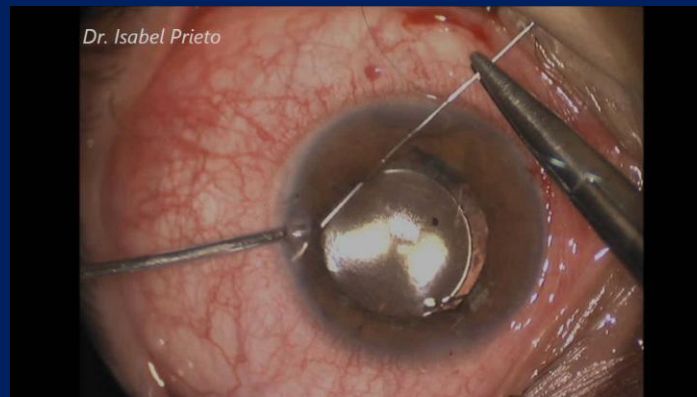
Before

McCannel-like imbricating sutures with a Siepser slipknot was used and passed at 3 and 9 o'clock to decrease pupil size



After

10-0 polypropylene suture & double long straight needle



Dr. Isabel Prieto

- ✓ Final BCVA: 20/20
- ✓ Less glare and photophobia
- ✓ Good aesthetic outcome

PATIENT 3

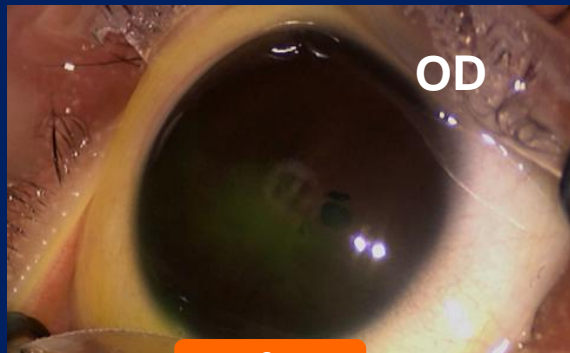


3 months old child

Absence of pupil due to extensive persistent pupillary membrane OS

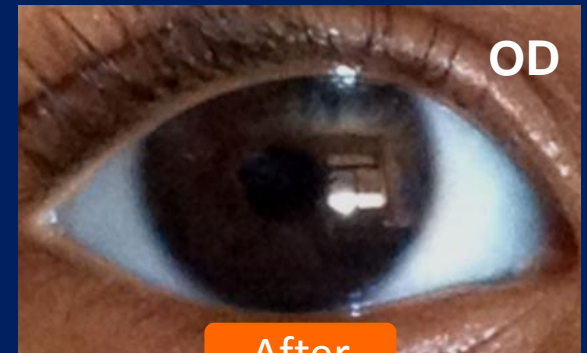
OD – normal

Systemic work-up - normal

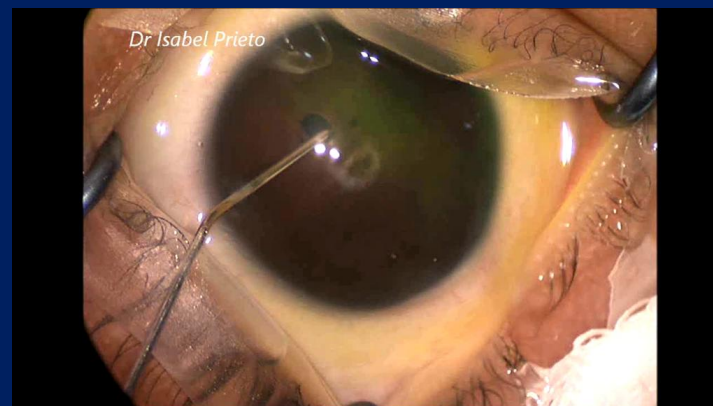


Before

Membrane removal
creating a normal and
centered pupil



After



3 months later

✓ Excellent
aesthetic and
functional outcome

DISCUSSION



- Traumatic and congenital pupil abnormalities are relatively common problems that can be addressed by a simple, economical and readily available **pupilloplasty**, without the need of iris prosthesis
- Pupilloplasty may improve visual outcome, reducing glare disability and photophobia
- This minimal invasive surgery showed to be a good option to correct pupil defects with good functional and cosmetic outcome.

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