Crisis of angel-closure glaucoma and plateau iris configuration secondary of numerous irido-ciliary cysts

K REDA; A ALAMI; A OUBAAZ
Department of Ophthalmology, Military Hospital Instruction MedV. RABAT
INTRODUCTION

- Plateau iris is an abnormal morphology of the iris that predisposes to the closure of the iridocorneal angle and the occurrence of an attack of acute hypertension.

- The ultrasound biomicroscopy (UBM) is a powerful examination for diagnosis and for determination of its primary or secondary.

- A numerous iridociliary cysts are a rare cause of secondary plateau iris.
OBSERVATION

A patient of 39 years, no family history of glaucoma, which was presented to the emergency in a clinical picture involving a painful red left eye with decreased visual acuity and periorbital headache.

- **Ophthalmologic examination:**
  - **Left eye:**
    - AVL: 3/10 can not be improved.
    - Anterior segment (Fig. 1): epithelial fog; normal depth of anterior chamber center, semi-aréflexique mydriasis, gonioscopy hindered by corneal edema.
    - IOP = 52 mmHg.

  ➢ Fig1: anterior segment → condensation Epithelial ,semi-mydriasis.
**Right eye:**

- AVL: 10/10.
- Anterior segment: cornea, anterior chamber depth normal, round pupil reactive, with a flat iris peripheral curvature accentuated backward; Gonioscopy revealed a narrow iridocorneal angle of grade 2 (fig2) and a double hump appearance after indentation (Fig3).
- Fundus: relation cup / disc = 04/10.

The diagnosis of plateau iris was suspected in the gonioscopic appearance.

**Fig2:** gonioscopy → AIC narrow  
**Fig3:** Double hump appearance.
Ultrasound biomicroscopy (UBM):

She confirmed the diagnosis of plateau iris secondary to polycystic bilateral irido-ciliary (Figure 4.5).

Fig 4.5: UBM anterior segment → appearance of plateau iris with irido-ciliary cysts.
- The left ocular hypertension was controlled by a hyperosmolar agent (mannitol 20% intravenously), a carbonic anhydrase inhibitor (Diamox 250) orally, a beta-blocker and a miotic (pilocarpine 2%) eye drops.

- The treatment was completed after control of hypertension by a crisis iridotomy (fig6) YAG laser for both eyes to remove the pupillary block has associated the plateau iris.

- the patient was subsequently placed on monotherapy (pilocarpine diluted to 0.1%) leading to normalize intraocular pressure

**Fig6:** UBM anterior segment objectifying iridotomy.
DISCUSSION

- The plateau iris configuration is due to various anatomical abnormalities: thick iris root or peripheral iris angulation greater than the standard anterior insertion of the iris to the ciliary body, ciliary processes large and / or moved previously.

- The patient may be asymptomatic or present a crisis of hypertension by angle closure.

- The diagnosis is suspected in a normal depth of anterior chamber in the center, the absence of convex iris to the periphery and an AIC narrow or closed. Gonioscopy may show an aspect of camel humps.

- The ocular hypertension is secondary to blockage by pré trabéculaire the root of the iris. A pupillary block is often associated.
- The UBM is a valuable diagnostic aid, it gives a better analysis of the ciliary body and the structures behind the iris, allowing the diagnosis of plateau iris and the determination of its primary or secondary.

- Irido-ciliary cysts primary, are one of the etiologies of the secondary plateau iris. They appear spontaneously in isolation and solitary in 80% of cases, patients between 20 and 30 years. They are often asymptomatic. In the presence of a triggering factor (factors causing mydriasis) and may be responsible for attacks hypertension.

- The treatment is based on the iridoplasty argon laser at the root of the iris. YAG laser iridotomy can lift the pupillary block.

- In our patient, we have not made the iridoplasty argon laser, as IOP could be balanced by an IP YAG laser and a single agent (pilocarpine diluted to 0.1%).
CONCLUSION

- Polycystic irido-ciliary may be responsible for an acute attack of intraocular pressure in angle closure.

- The UBM-examination is crucial for diagnosis and for monitoring after treatment.