Outcomes of Trabeculotomy for Primary Congenital Glaucoma in a Tunisian Population

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PURPOSE:
To evaluate the surgical outcome of trabeculotomy in children with primary congenital glaucoma from Tunisia.

METHODS:
A retrospective chart view was performed on pediatric patients treated with primary trabeculotomy for primary congenital glaucoma. For all patients we performed ab-externo trabeculotomy (Fig n°1) using right and left trabeculotome (Fig n°2).
Main outcome measures were preoperative and postoperative intraocular pressures (IOP), corneal diameter, corneal clarity, surgical success, complications and duration of follow-up.
Success was defined by IOP less than 16 mmHg (without medications and under general anesthesia), stabilized corneal diameter and disc cupping.

RESULTS:
A total of 28 eyes of 15 patients were analyzed. Nine patients were male. Mean age at diagnosis was 3 months (birth to 5 months). Mean age at surgery was 8 months (3 weeks to 23 months). Thirteen (86.6%) patients had bilateral disease. Mean duration of follow up was 16 months (6 to 36 months).
Average corneal diameter preoperatively was 13.1 mm ± 1.4. Corneal oedema was encountered in 17 eyes (60.7%). Mean preoperative IOP was 27.2 ± 5.4 mmHg. Mean postoperative IOP decreased to 12.4 ± 4.8 at last follow up. Success was achieved in 89.2% at last follow up. Intraoperative complications included: severe hyphema in one case (3.5%), managed with anterior chamber drainage, mild hyphema in 4 cases (14.2%) and localized descemem detachment in one case (3.5%). Two cases (7%) had only hemi-trabeculotomy (due to hypotony and flat chamber) and in one case (3.5%) we had iatrogenic traumatic cataract (had had successful surgical procedure one week later) (Fig n°3).

COMMENTS AND CONCLUSIONS:
- Trabeculotomy is a safe and effective procedure for the treatment of primary congenital glaucoma [1,2].
- It’s particularly useful in cloudy corneas [3].
- The complications met were mainly due to the learning curve.
- However in severe cases of primary congenital glaucomas with high IOP combined trabeculotomy-trabeculectomy seems to be more effective with a higher success rate. [3,4]
- 360° trabeculotomy is a variant technique that appears to be also safe and effective. [5,6]

REFERENCES: