



Abulreesh Children's Hospital

Secondary glaucoma to Sturge Weber syndrome. A case series

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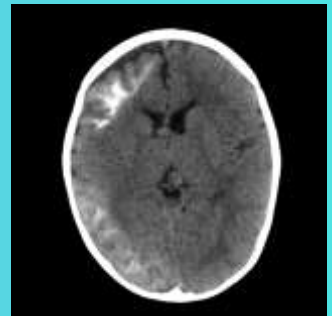
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INTRODUCTION

- Congenital neurological and skin disorder.
- Characterized by :
 1. Port wine stain
 2. Neurological manifestations (leptomeningeal angiomas).
 3. Ocular manifestations(glaucoma and choroidal haemangioma)



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Types of SWS

01

Most common

All manifestations are present

Cutaneous type

No neurological manifestations

02

03

Neurological type

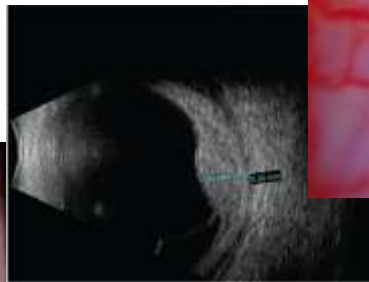
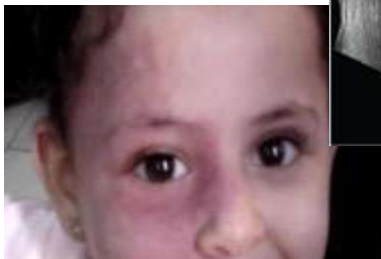
No skin or ocular manifestations

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Ocular manifestations of SWS



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Glaucoma in SWS

- Glaucoma presents in **30-70%** of patients with SWS.
- Approximately **60%** of patients present with glaucoma at birth and 40% manifest glaucoma later in life.
- The incidence of glaucoma increases when the PWS involves the **eyelid**.
- It presents most often ipsilateral to the PWS but can also manifest **bilaterally**.

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Mechanism of glaucoma in SWS

01

Malformation of the anterior chamber angle

- Present early in life with other signs of PCG
- The angle is underdeveloped in gonioscopy

02

Elevated episcleral venous pressure

- Present later in life.
- The angle is normal in gonioscopy

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Our case series

• Retrospective case series.

• Including the patients with glaucoma secondary to SWS who presented to the ophthalmology clinic of **Abulreesh Children's Hospital**.

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PATIENT MEDICAL HISTORY 1



AGE

1M

GENDER

Male

SIGNS

HCD: 12mm, hazy cornea
 IOP: 21 mmHg on combination
 CDR: 0.3,
 Choroidal Haemangioma.
 Epileptic.

12/2017

Presentation
Rt SWS


1/2018

Trabeculotomy
360°, on healon

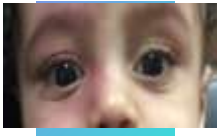
12/2019

Controlled
IOP 08 mmHg on no tt

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PATIENT MEDICAL HISTORY 2



AGE
2M

GENDER
Male

SIGNS


HCD: 13mm
IOP: 24mmHg on combination
CDR: hazy view of cupped disc.
No choroidal haemangioma.
Epilepsy

04/2016 ○ **Presentation**
Bilateral SWS
Rt glaucoma


05/2016 ○ **Trabeculotomy**
180°

04/2019 ○ **Controlled**
IOP 12 mmHg on no ttt

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PATIENT MEDICAL HISTORY 3



AGE
11 days

GENDER
Female

SIGNS


HCD: 12mm, hazy cornea
IOP: 22 mmHg on combination
CDR: 0.3
No choroidal haemangioma
No neurological manifestations

09/2017 ○ **Presentation**
Rt SWS

10/2017 ○ **Trabeculotomy**
SN180°
IT 90°


11/2019 ○ **Controlled**
IOP 12 mmHg on no ttt

10



PATIENT MEDICAL HISTORY


4



AGE
1M

GENDER
M

SIGNS
HCD: 11.5mm, Hazy cornea
IOP: 22mmHg
CDR: Hazy view of cupped disc
No choroidal haemangioma
Epileptic



4/2015 ○ **Presentation**
bil SWS, Lt glaucoma

01/2015 ● **Lt Goniotomy**

01/2015 ● **Lt Trabeculotomy**
180°IT


01/2016 ● **Lt trabeculotomy**
270° (SN not found)

01/2019 ● **Lt Diode**

1/2020 ● **Lt Trabeculectomy**


1/2020 ○ **Last FU**
Clear cornea,
IOP 12mmHg, CDR 0.8

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PATIENT MEDICAL HISTORY

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AGE
2Y

GENDER
Male

SIGNS
HCD: 13mm
IOP: 32mmHg OS on combination
CDR: 0.8
No choroidal haemangioma
Epileptic

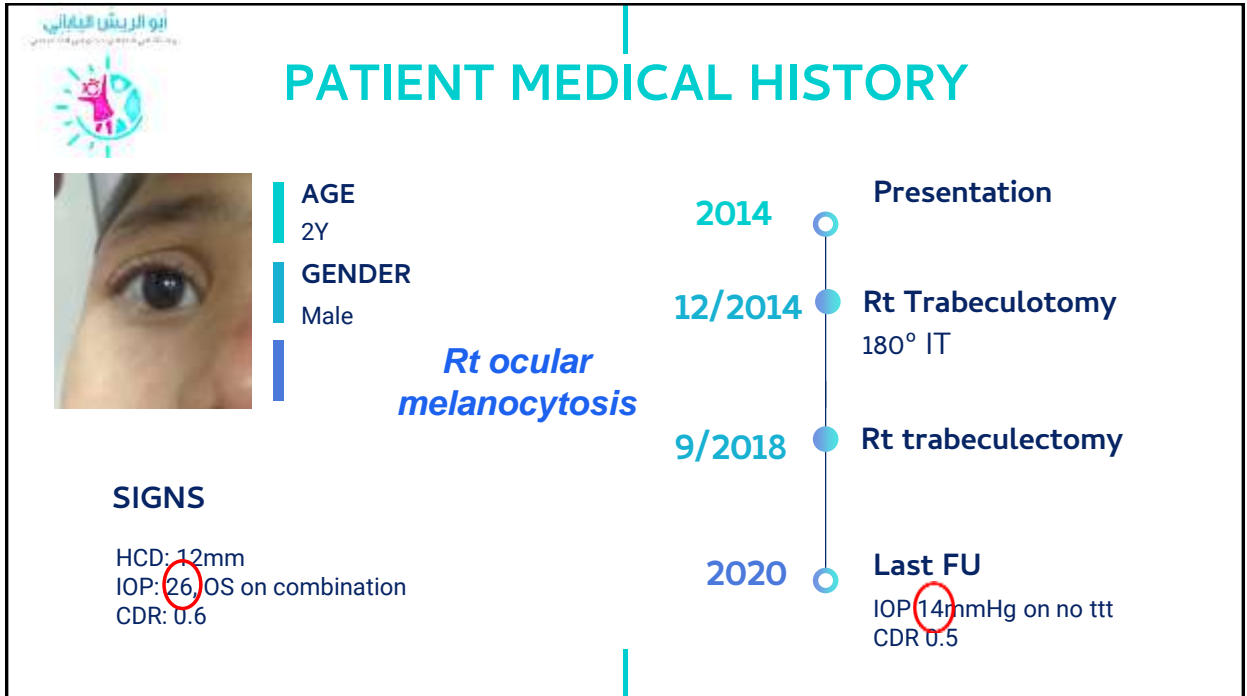
2014 ○ **Presentation**
LT SWS, Rt ocular melanocytosis

01/2015 ● **Trabeculotomy**
180° IT

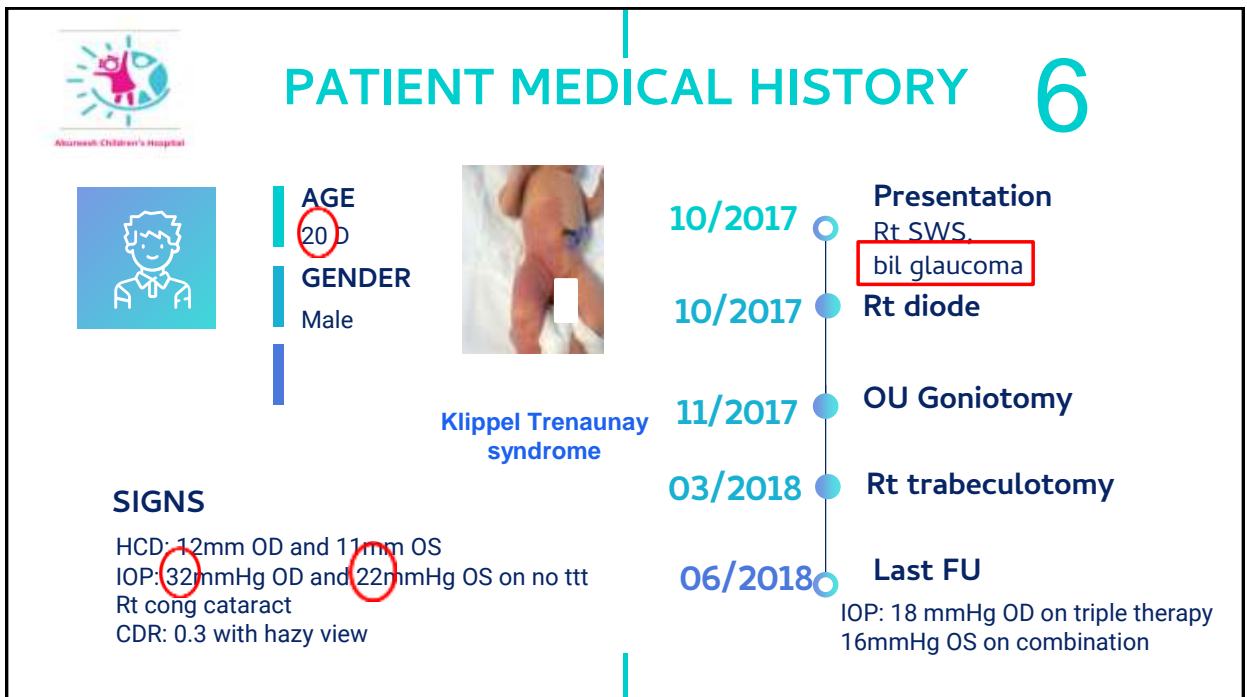
5/2016 ● **Lt redo trabeculotomy**
180 SN

2020 ○ **Last FU**
IOP 16mmHg on combination
CDR 0.6

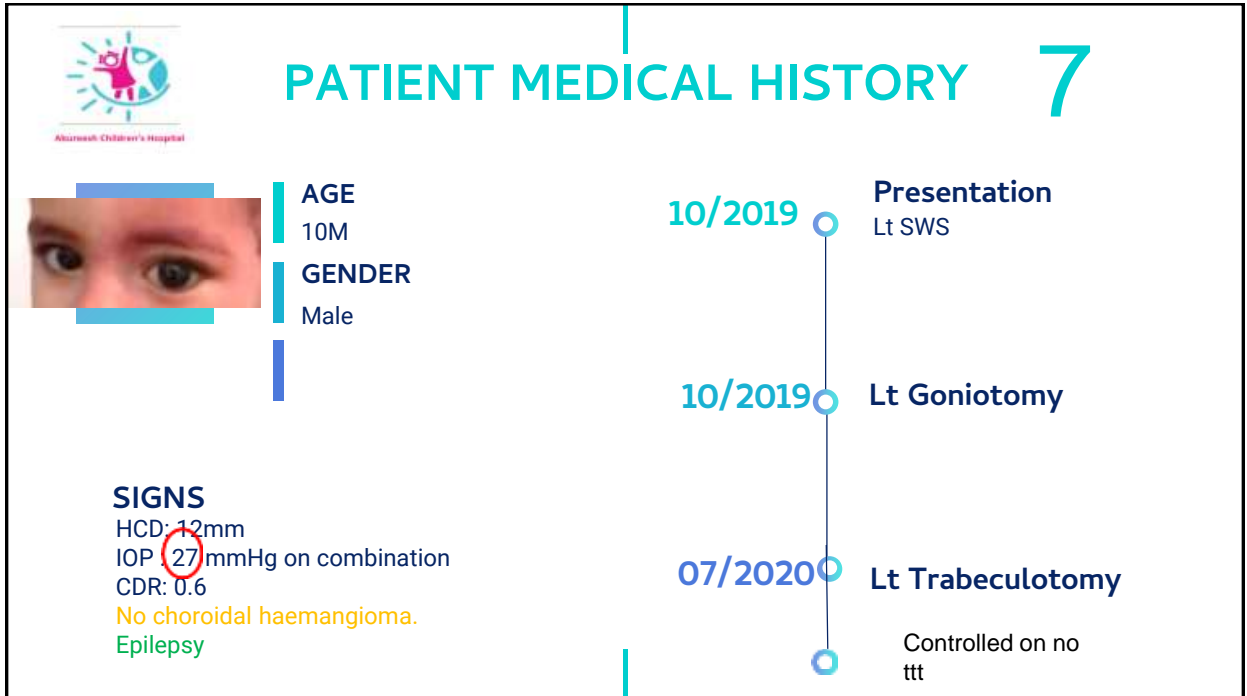
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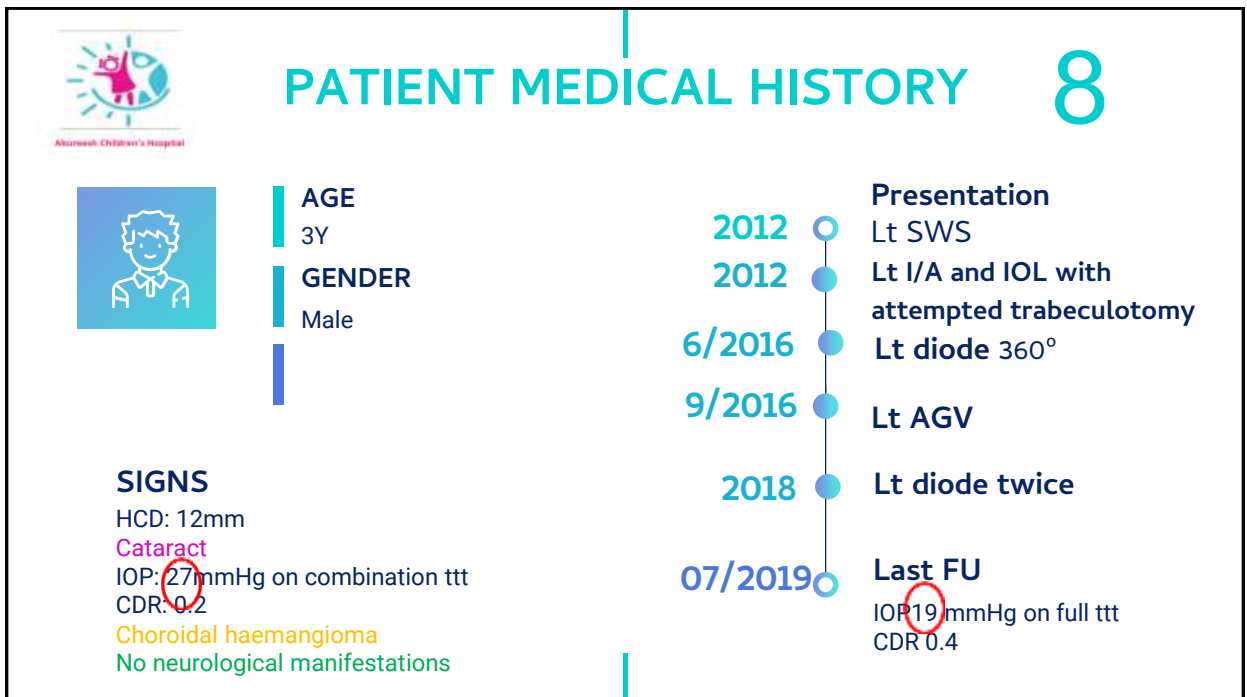
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PATIENT MEDICAL HISTORY

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AGE
13Y



2009

- **Presentation**
Bil SWS, Bil glaucoma
- **Multiple glaucoma surgeries**
- **Rt AGV**
- **Rt Diode**

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07/2020

- **Last FU**
IOP26 mmHg on full ttt

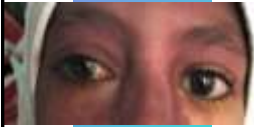
SIGNS

HCD: 13mm OU
IOP: 27mmHg OD on full ttt

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PATIENT MEDICAL HISTORY



AGE
13Y

GEN
Female



2009

- **Presentation**
- **Multiple glaucoma surgeries**
- **Lt 360 ab-interno trabeculotomy using KDB**

07/2020

- **Last FU**
IOP19 mmHg on combination

SIGNS

HCD: 13mm
IOP: 22mmHg OS on full ttt

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DISCUSSION

► *Eur J Ophthalmol.* 2018 Mar;28(2):210-215. doi: 10.5301/ejo.5001024. Epub 2017 Jul 9.

Long-term Intraocular Pressure After Combined Trabeculotomy-Trabeculectomy in Glaucoma

International Journal of Ophthalmology

Eye
The British Journal of Ophthalmology

► *Eur J Ophthalmol.* 2020 Jan;30(1):168-174. doi: 10.1177/1120672118819668. Epub 2018 Dec 19.

Glaucoma in Children With Facial Port Wine Stain

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Affiliations: ¹ expand

PMID: 30563364. DOI: 10.1177/1120672118819668

Abstract

Purpose: To report on the clinical presentation and surgical treatment (procedure and outcome(s)) of glaucoma in children with facial port wine stain.

Materials and methods: This is a retrospective chart review of children with facial port wine stain referred to Alexandria University paediatric ophthalmology practice from 2005 to 2016. The charts of 22 children (44 eyes) with facial port wine stain were reviewed. The data extracted included demographic, results of ophthalmic examination findings and treatments. The main outcome

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Conclusion

Although this was a small case series, we found that SWS patients presented at **younger age** respond well to angle surgery.

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THANKS

