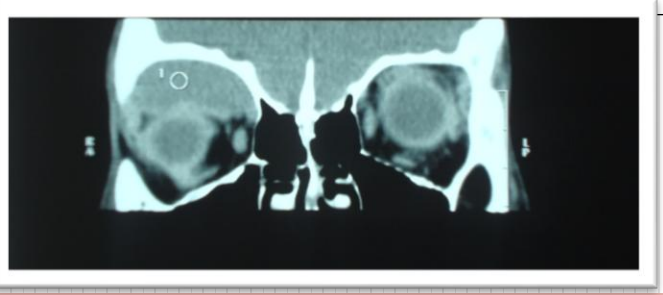

PEDIATRIC TRAUMATIC ORBITAL SUBPERIOSTEAL HEMATOMA; CASE SERIES WITH LITERATURE REVIEW

Presenter:

Hasani H, MD

Labbafinejad Medical Center
Shahid Beheshti University of Medical Sciences

ASCRS-2014

- **Financial Disclosure**

The authors have no financial interests or relationships to disclose.

- **Purpose:** To describe five children with posttraumatic orbital subperiosteal hematoma with a relevant literature review.

- **Design:** *R*etrospective case series.

Methods

- Between June 2009 and June 2012 (during 3 years), five patients were diagnosed as traumatic orbital subperiosteal hematoma in the Farabi eye hospital, Tehran University of Medical Sciences,oculoplastic service.
- We also reviewed all published literature through PubMed search.

Results

- Five pediatric patients with orbital subperiosteal hematoma with different clinical manifestations and radiologic signs are presented which underwent different treatments: surgical evacuation, needle aspiration and no intervention with close follow up.

- Literature review added to our cases showed 28 cases totally which 82% of them were boys with a mean age of 10 in the age range of 4 to 17 years.

- 27 patients (96%) had a history of blunt trauma including falling or direct impaction. 89% of patients were unilaterally involved versus to 11% bilaterally.

- Mean interval time between trauma andpresentations was 10 days.

- visual acuity was decreased in 63% of patients which 30% had an compressive traumatic optic neuropathy.

- 17% had a nondisplaced orbital roof fracture .
- Nearly all of the patients had subperiosteal hematoma in the superior orbital wall.
- Treatment options were surgical evacuation in 13 patients (46%), needle aspiration in 6 cases (21%) and observation in 8 children (28%) for spontaneous resolution.

- Fig.1- Proptosis , downward displacement of the globe , Hypotropia and Exotropia of the left eye accompanied with anomalous head posture (chin up).

- Fig.2- CT scan shows a homogenous mass with a well–defined border and a linear fracture of superior border in the right orbit.

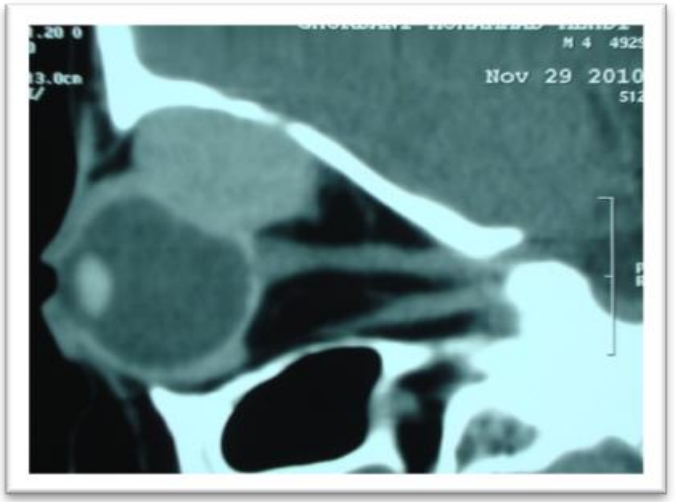

Table1.Clinical data for 28 patients with orbital subperiosteal hematoma

Study , year	Age/ gender	Eye	Type of Trauma	Extra orbital Hematoma	Bone fracture	Optic neuropathy	Treatment	Per manent visual loss
Wolter , 1979	14/M	OS	Motor vehicle accident	-	Frontal linear	+	Aspiration	+
Katz and Abrams, 1981	16/M 12/M	OD OS	Bicycle Blunt trauma	Subgaleal -	- -	+ -	Aspiration Observation	- -
Dhir et al,1982	17/M	OD	Bicycle	-	-	-	Aspiration	-
Pope-Pegram and Hamill,1986	7/M	OS	Falling down	Subgaleal	-	-	Surgical drainage	-
Kerstein and Rice,1987	17/M	OD	Falling down	-	-	+	Surgical drainage	+
Pasaoglu et al.,1989	5/F	OU	Blunt trauma	Subgaleal	-	+/OU	Surgical drainage	-
Tonami et al., 1994	9/M	OS	Blunt trauma	-	-	Not stated	Observation	-
Aguas et al., 1995	15/M	OU	Blunt trauma	Subgaleal	-	+/OU	Surgical drainage	-
Landa et al., 1998	14/M	OD	Bicycle	-	Frontal,linear	-	Surgical drainage	-
Sabet et al., 2001	9/M	OD	Blunt trauma	-	-	-	Surgical drainage	-
Rojas et al., 2002	9/F	OD	Falling down	-	-	-	Aspiration	-
Oh et al., 2004	8/M	OU	Blunt trauma, factor 8 and 12 deficiency	Subgaleal	-	+/OU	Surgical drainage	-
Brucoli et al.,2005	10/M	OS	Bicycle	Subdural	-	Not stated	Aspiration	-
Sharma et al.,2007	15/M	OS	Blunt trauma	Epi- and subdural	Frontal,linear	-	Surgical drainage	-
Higashi et al.,2008	9/M	OS	Blunt trauma	Subgaleal	Not stated	Not stated	Not stated	-
Ganesan et al.,2008	10/M	OD	Bicycle	-	-	-	Observation	-
Yazici et al.,2010	13/M 14/M 8/F 8/F 14/M	OS OD OS OS OD	Blunt Blunt Bicycle Falling down Blunt, Factor 8 Deficiency	- - - Pararenal hematoma -	- - - - -	+ - - - -	Surgical drainage Surgical drainage Surgical drainage Observation Surgical drainage, Factor 8 supplementation	- - - - -
Current study,2013	4/M 12/M 9/M 13/M 9/M	OD OD OS OD OD	Blunt Blunt Bicycle Car accident Blunt	- - - - -	+ - + + -	- - - + -	Aspiration&surgical drainage Surgical drainage Observation Surgical drainage Observation	- - - + -

Conclusion

- pediatric posttraumatic orbital subperiosteal hematoma typically occurs in the superior orbital wall after blunt trauma. Traumatic optic neuropathy is uncommon. Surgical drainage is a safe option for these patients.


THANKS
For your attention