RESEARCH STUDY

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Orbital Hydatid Disease: A case study of young patients with primary orbital lesion.

ARTICLE INFORMATION

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Keywords:
Orbital hydatidcyst,children , primary lesion.

Background:This is a prospective study of three children presented to us in the Orbital clinic in AL ShahidGazi Al Hariri Hospital with painless proptosiswith suspension of Hydatid disease.

Objectives: : Orbital hydatid disease is a rare lesion accounting for less than 1% of the total lesions of the body [1, 2]. Orbital cysts presented as a primary lesion in our study which is rare to have such lesion without involvement of other organs [3]. Humans represent the intermediate host where the commonly affected organ are liver and the lung (10-15%) [4].

Methods:This is a prospective study of three Children presented to us in the Orbital clinic in Al Shahid Ghazi Alhariri Hospital with painless proptosis with suspension of Hydatid disease, depending on the cultural background and baseline investigation done elsewhere, during the period from Jan. 2012 to Jan. 2013.

Results:Three children presented to us with painless proptosis one of them involving the right eyewhile the other two involve the left eye. One of patients male aged only three years while the other two were females aged nine and thirteen years of age. After radiological investigations two of the Children found to have a cystic extraconal lesion in superolateral angle of the orbit while the other one his lesions found in the superomedial angle of the orbit. The first two surgically approached by lateral orbitotomy while the other one by medial orbitotomy trying to avoid rupture of the cysts. After histopathological investigation of the lesions the diagnosis was confirmedasHydatidcyst.

conclusions: Hydatid cyst of the Orbit is uncommon disease account for less than 1% of the total orbital lesions of the body.Haydatid disease of the orbit more common on the left side.

The most common sites involved in the Orbit are the superolateral and superomedialangle.Haydatid disease of the orbit can present as a primary lesion without evidence of involvement of other part of the body.Haydatid disease of the orbit can present below 7 years of age.

Haydatid cyst of the orbit can be removed intact with meticulous dissection.

Introduction:

Orbital hydatid disease is a rare lesion accounting for less than 1% of the total lesions of the body [1, 2]. Orbital cysts presented as a primary lesion which is rare to have such lesion without involvement of other organs [3].Usually Orbital lesion appears together with another lesion elsewhere in the body [3].The incidence of orbital hydatid lesion in patients with cystic orbital lesion about 25.8% [4]. In this paper we report three children with a solitary intraorbital lesion without evidence of the presence of the lesion elsewhere in the body, one of the cases was a child aged three years old.

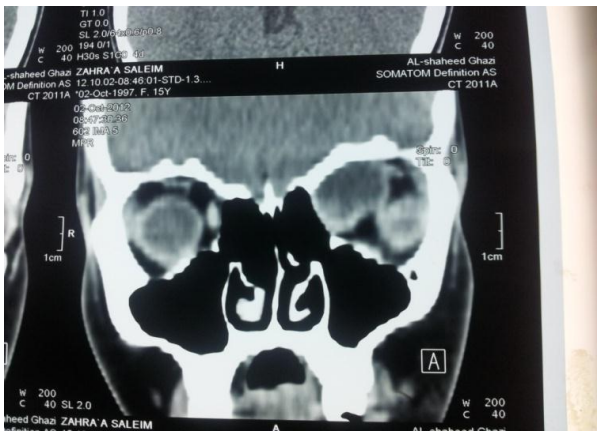
Methods:

This is a prospective study of three Children presented to us in the Orbital clinic in Al Shahid Ghazi AlhaririHospital with painless proptosis with suspension of hydatid disease depending on the cultural background and baseline investigation done elsewhere during the period from Jan. 2012 to Jan. 2013, all of the cases were evaluated by thorough clinical history and examination in addition to the ophthalmologist checkup, then they sent to laboratory and radiological investigation involving the orbit itself and other parts of the body to exclude presence of lesions. After the diagnosis has been settled we proceed to surgical treatment to excise the cyst using an approaches which allow us to have a wide exposure and meticulous dissection to avoid rupture of

the cysts. Patients had been followed up for a period of six months.

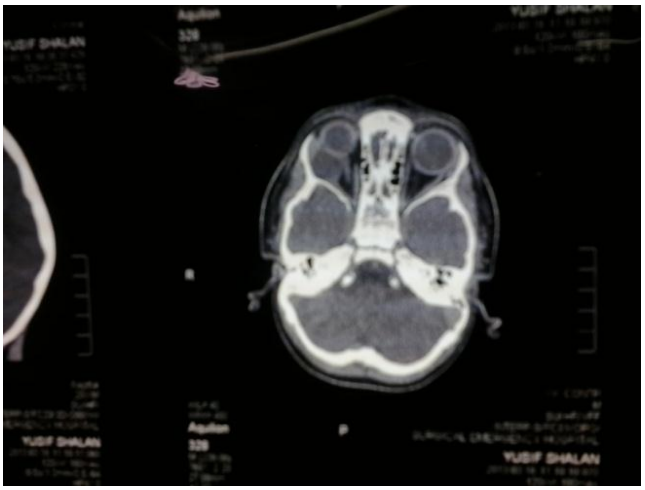
Results:

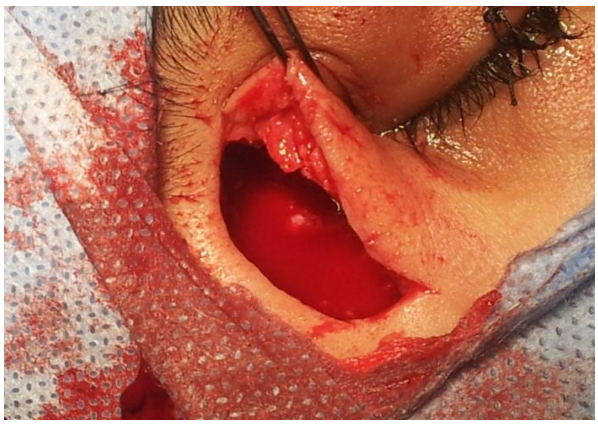
Three children presented to us with painless proptosis one of them involving the right eyewhile the other two involve the left eye (Tab.1). One of them male aged only three years while the other two were females aged nine and thirteen years of age (Tab.1). After radiological investigations (Computed tomography and MRI) two of the Children found to have a cystic extraconal lesion in superolateral angle of the orbit fig.1.a. While the other one his lesions found in the superomedial angle of the orbit fig.2.a, the lesions were oval in shape with no contrastenhancement after I.Vcontrastadminstration.Further evaluation and investigation of the other parts of body reveal no concomitant lesions. The first two surgically approached by lateral orbitotomy while the other one by medial orbitotomy (fig.1.b.) trying to avoid rupture of the cysts. With meticulous dissection all the cystic lesions have been removed intact using warm saline irrigation in the space separating the covering sheath from the cyst (fig.1.c&2.b). After histopathological investigation of the lesions the diagnosis were confirmed. Postoperatively patient's proptosis getting less and within six month of follow up it totally disappear.



Side	Left	Right
	2	1
Site	Superlat	Supermed
	2	1
Gender	Male	Female
	1	2
Age	>7	<7
	2	1

Table 1.show the distribution of the Orbital Hydatid according to the side, site, gender, and age.





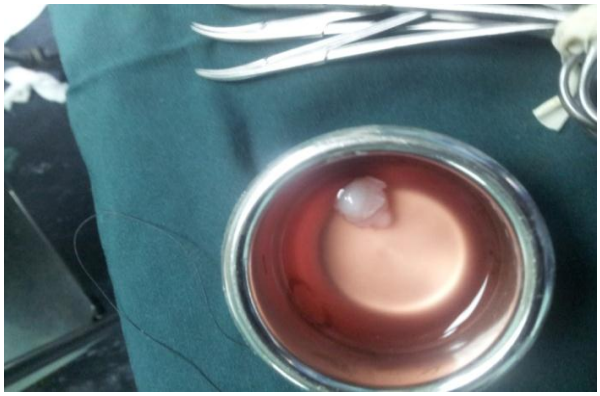
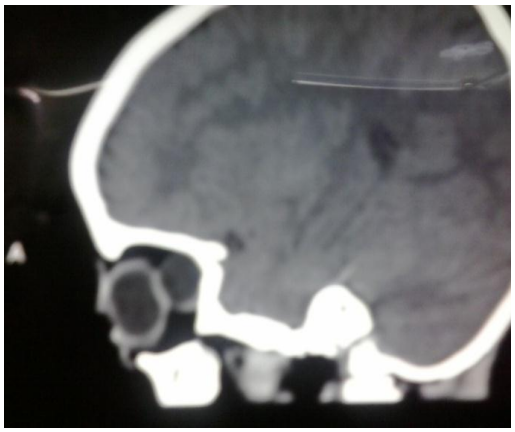


Fig 1. A.C.T scan of a 13 years old female with orbital hydatid cyst located at the superiomed. Angle. B.The Cyst approached by medial orbitotomy. C.The Cyst excised intact .



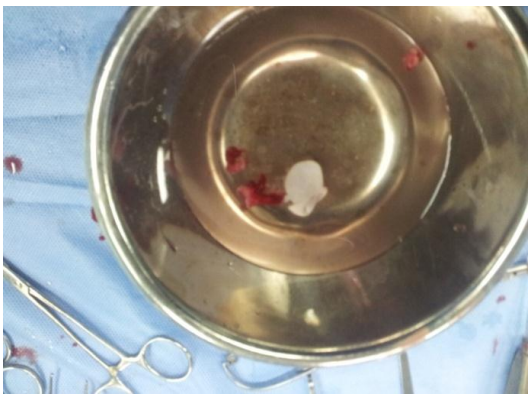


Fig.2. A. C.T scan of 3years old boy Axial and saggital view show cystic lesion at the superiolateral angle of the orbit. B. The Cyst excised intact .

Discussion:

IntrorbitalHydatid cyst is a rare disease among other organs which represent about <1% of the total cases of the body Hydatid ,Coony RM et.al. report the incidence of orbital hydatid in highly endemic areas 25.8% of all cystic orbital lesions [1, 2, 5, 6, 10]. In our study two of the cases, the cyst found in the superolateral angle of the orbit while the other one in the superomedial angle and this is the most common sites the Hydatid cyst situated in the orbital cavity [3].Two of the cases involve left eye, Talib ,in his report,stated that the left side commonly affected due to that the common carotid artery arise directly from the summit of the aortic arch[11]. Orbital Hydatid caused by parasitic infection (EchinococcusGranulosus -metacestode stag) [7].Humans represent the intermediate hostwhere the commonly affected organ are liver and the lung (10-15%) [4,7]. Orbital cysts presented as a primary lesion in our study which is rare to have such lesion without involvement of other organs [3]. Orbital Hydatid rarely occur below 7 years of age[3,4].In our study we report a case of Orbital Hydatid aged only three years old while the other two cases aged nine and thirteen years. All of the three cysts removed intact in our patients while in other study it is uncommon to remove it without rupture where among 10 cases reported by Benazzou, only one cyst was removed intact without rupture [3] while Murat et.al. they aspirate the content of the cyst and irrigate the cavity with hypertonic saline after which a collapsed cyst removed totally [7,8,9].

Conclusions:

Hydatid cyst of the Orbit is uncommon disease account for less than 1% of the total orbital lesions of the body.

Haydatid disease of the orbit more common on the left side.

The most common sites involved in the Orbit are the superolateral and superomedial angle.

Haydatid disease of the orbit can present as a primary lesion without evidence of involvement of other part of the body.

Haydatid disease of the orbit can present below 7 years of age.

Haydatid cyst of the orbit can be removed intact with meticulous dissection.

Recommendations

In cystic lesions of the Orbit, Hydatid cyst should be taken in consideration especially if situated in the superiolateral or superiomedial angle of the orbit.

In cystic lesion of the Orbit, Hydatid cyst stills a possibility even in the absence of primary disease..

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