CASE REPORT
HYDATID CYST OF THE ORBIT

A. Aziz Awan, Tariq Mufti and Saleem Akhtar

INTRODUCTION

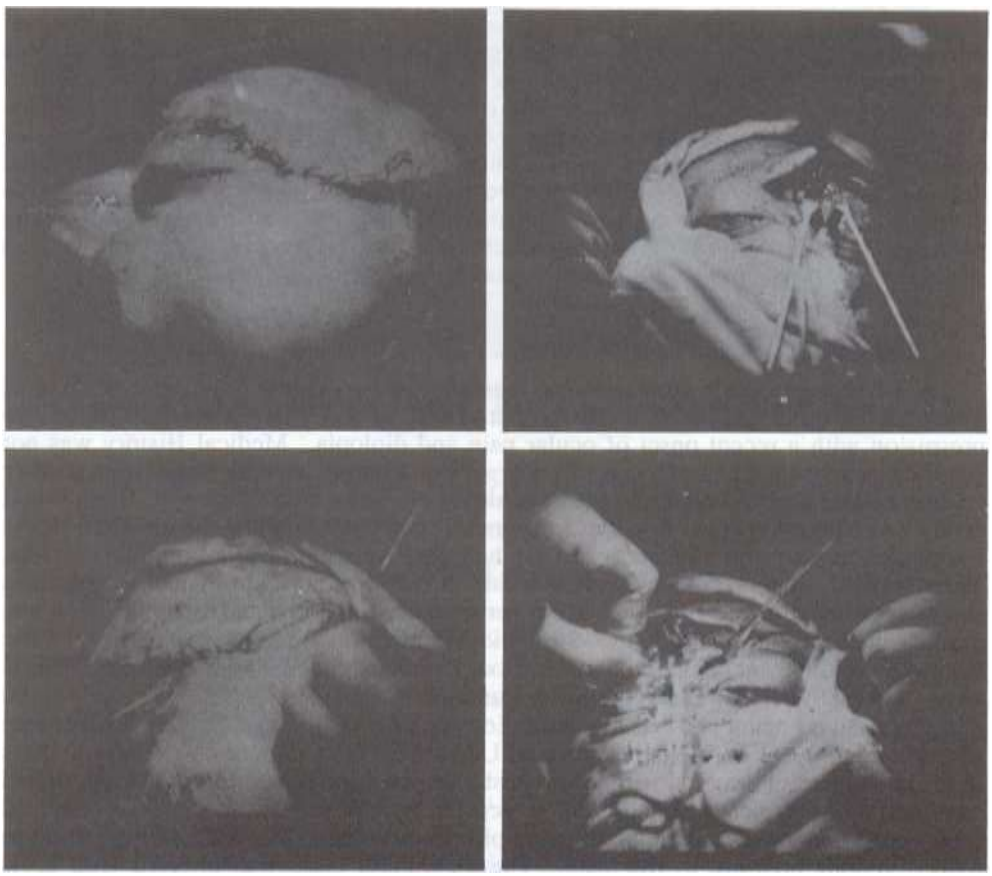
Hydatid cyst is the larval stage of dog tapeworm, Echinococcus Granulosis. Human infection occurs from ingestion of water and green vegetable contaminated with dog faeces and by handling infected dogs and ungulates. Although hydatid cyst has been reported to develop in any organ of the body but 90% of the disease occurs in the liver and lungs. Other organs such as brain, bone, and rarely orbit and soft tissue may be involved. Intra-orbital hydatid cyst gradually enlarges causing progressive proptosis, disk oedema, diplopia, exposure keratitis and if untreated to irreversible visual loss. Pre-operative diagnosis in spite of host of available diagnostic facilities is not always conformity. The present case offered similar diagnostic dilemma. Surgical resection of the cyst is the treatment of choice with the post-operative course of Mebendazole.

CASE REPORT

A 36-year-old male from Haripur was admitted to Ophthalmic Unit of D.H.Q. Teaching Hospital, Abbottabad in August, 1988 with 6 years' history of right eye protrusion with a recent onset of ocular pain and diplopia. Medical History was not significant except that he had received a course of oral steroid a month earlier from another centre. Examination revealed left visual acuity of 6/6 and a normal left eye. Right visual acuity was reduced to count finger at 3 meters. He had 9mm proptosis on modified Hertal Exopthalmometer with clear cornea. He had positive right afferent pupillary defect. There was lid oedema, conjunctival chemosis. I.O.P. was normal. Fundal examination showed marked disc oedema. He had 6th nerve palsy with horizontal diplopia which was marked in the right lateral field. Systemic examination was non-contributory. The laboratory findings including HB, Urine, Stool Examination, Fasting Blood Sugar, Blood Urea, Liver Function Test, Thyroid Function Test, were within normal limits. Peripheral blood count showed moderate Eosinophilia. Chest and Orbital X-rays were normal. Casoni test was negative. Orbital Ultrasonography showed an oval cystic mass in the lateral part of the orbit with infero-posterior extension measuring 4x3.02cm. It had posterior wall enhancement and multiple septas. Patient underwent exploratory lateral orbitotomy under G.A. The patient was placed in reverse Trendelenburg position to reduce venous pressure to the head. The temporalis fossa was injected with 0.5% Lignocian with I: 200,000 Adrenaline. 60 silk intermorainal sutures were applied to protect the globe. 5cm incision from lateral cantus into temporalis fossa was given (care was taken not to extend the incision for too lateral to avoid injury to frontal branch of fascial nerve. Gigli Saw was used to bisect the zygomatic arch at two levels, and 2cm of bone segment was removed in order to gain better access to lateral orbital wall, which was nibbled away piecemeal to provide 2cm radius hole.

From: Ayub Medical College, Abbottabad.
A. AZIZ AWAN, FRCS, Department of Ophthalmology.
TARIQ MUFTI, FRCS, Department of Ophthalmology.
SALEEM AKHTAR, MBBS, DMRD, Department of Radiology.

The periorbital was incised. The cyst was identified and aspirated. 2cc. of 10% Formaline was carefully injected. Later, cyst was irrigated with isotonic saline. Cyst wall and germinal layer removed taking care to avoid any spillage. Bone segment was replaced. Pemrose drain was left. Muscle and subcutaneous tissues were closed in layer with 6° chromic catguts. Skin was closed with 6° black silk. Post-operatively, patient received Mebendazole 600 mg. TDS for 6 months. His proptosis receded, visual acuity improved to 6/36, Diplopia and lateral Rectus palsy took longer to settle. He is Asymtomatic at two years of follow-up.



DISCUSSION

Hydatid cyst is rather an uncommon cause of proptosis. Intra-Ocular Hydatid cyst is extremely rare of which only 4 cases have so far been reported worldwide, one by Arora and Dhanda, 3 by Baghdassatian et al.[1,2] But many cases or orbital hydatid cysts have been reported from India and Iraq.[3] Hydatid infections are acquired during childhood and tend to have increased incidence among members of the same family.[4] Although infection is acquired during childhood, it grows slowly and is diagnosed during adult life.

Hydatid cyst in rare sites presents diagnostic quandary. Available diagnostic methods include Casoni Test which is positive in 70% of the cases but non-specific, as reported by Kagan.[5] Similarly Eosinophilia is not a sensitive test. ESR was not raised unlike that has been found by

Chaudhry et al.[6] Counter-immunoelectrophoresis was not available although it is considered to be more accurate. Capron et al.[7] Ultrasonography is a better diagnostic modality, as it points to cystic nature of orbital lesion. It should be employed as an aid in the diagnosis.[8] Computerized Tomography (CT) has revolutionized the diagnosis of orbital lesion, when there is mass, it can show its site, size and density, while Orbital Hydatid cysts have low CT. Density indicating fluid consistency. Orbital Hydatid cyst always has high C.T. value approaching that of solid tumor. This discrepancy between orbital hydatid C.T. Density is peculiar and confusing.[9] It must be a blessing in disguise as only 0.1% of the population has been access to C.T. (in Pakistan). Once the diagnosis is made, surgical intervention becomes mandatory to avoid anaphylaxis, infection, plafolation of the cyst, and more important the pressure symptoms. Formaline injection in the orbital cyst is controversial and fraught with danger as it may diffuse into orbital tissue.[10] Lateral Orbitotomy allows wide exposure of the Retrobulbar space and is indicated when anterior approach is likely to be inadequate.[11 * 13] Post-operatively, Mebendazole 30-40 mg/kg daily for six months to one year is reported to be scolecidal drug of choice.[12,13] The excellent recovery of vision and reduction from the optic nerve. Diplopia and 6th nerve palsy took 3 months to abate.

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