ABSTRACT
Hydatid disease is a parasitic infestation caused by Echinococcus granulosus. Echinococcosis occurs worldwide and can affect multiple organs. Majority of the intracranial cysts are secondary and solitary. Bilateral and multiple primary cerebral cysts are uncommon and occur as a result of rupture of primary cerebral cyst or embolization from a ruptured peripheral cyst. Emergency surgical management of a 20-year-old man with multiple and bilateral primary hydatid cysts are presented. Eleven cysts, which were symptomatic due to their mass effect, were surgically removed in two stages, followed up with medical treatment. The patient was admitted firstly, with blindness, headache, vomiting and frontal syndrome six months later. The patient deteriorated rapidly with signs of left temporal commitment. Postoperative outcome was satisfactory. In addition to the fact, that the presented case is an additional example for the rare primary multiple and bilateral cerebral hydatid cysts.

CASE REPORT
A 20-years-old man, the member of a family dealing with stockbreeding was admitted to the hospital with blindness, unremitting headache, vomiting and frontal syndrome. Neurological examination revealed bilateral papilledema without neurological deficit. Cranial MRI showed bilateral and multicystic lesions. Those lesions were isointenses to CSF on all sequences and compressed lateral ventricle. The larger cyst was located in the left frontal lobe measuring 4x3x3 cm in size [Table/Fig-1&2]. The patient was scanned to evaluate other possible organ involvements. Chest X-rays, abdominal ultrasonography and cardiac echo detected no findings suggestive of other systemic involvement of hydatid cyst disease. Additionally, serological test was very positive at 1560 UI/ml (normal < 160 UI/ml). Routine laboratory tests were within normal limits. The patient deteriorated rapidly with signs of left temporal commitment. The left cystic lesions were removed surgically to relieve the significant cyst-related mass effect. A relatively large frontal and occipital craniotomy were applied and cortical dissection was performed. Care was taken to avoid the rupture of the cysts during cortical dissection, but this was not possible for not worsening brain injury. The multicystic lesions consisting of 5 cysts was removed totally using puncture aspiration and continuous warm saline...
liver [10]. Computerized tomography scans and magnetic resonance characteristically show hydatid cysts as spherical, well-defined, non-enhancing cystic lesions disease [1]. The location is often superficial encouraging its enucleation without rupture. Multiple cysts pose various problems, not diagnostic but especially therapeutic. Surgery or isolate medical treatment [11].

Surgery is the treatment of choice for cerebral hydatid cysts. The aim of the surgery is the intact delivery of these cysts whenever possible [12]. Hydrodissection technique is the most useful method for intact delivery. For multiple cysts; an extra care should be taken to avoid the rupture during the extirpation of the cysts. But this technique can be dangerous and caused parenchymal damage in case of profound and eloquent location [10]. The rupture rate of hydatid cysts is higher in patients in whom the cyst is located deep in the parenchyma. Retractions that are performed to reach a cyst located in deep tissues of the brain as in our case, may cause temporary or permanent neurological deficits. Aspiration of the cystic contents through puncturing during the surgery for deep- seated cyst or cysts which located in critical areas is an alternative method [13]. Especially as multiple hydatid cysts resulting from the rupture of a primary cyst are infertile and have no broad capsule which permits the use of Dowling technique [14]. So the resultant risk of recurrence after their rupture is negligible. Our suggestion is to deliver multiple cysts one-by-one patiently with a small corticotomy. The largest one should be removed first, followed by the rest. In case of a rupture, careful suction must be performed in order to remove cyst content and surgical field must be irrigated with hypertonic saline solution. The surrounding parenchyma must be protected by cotton soaked hypertonic saline [15].

Medical treatment is highly recommended for patients with multiple cysts or deep-seated cysts, inoperable cysts and those who are not good candidates for surgery or may be suffering from recurrent cysts [10]. Albendazole may be administered for a number of reasons including to sterilize the cyst, decrease the risk of anaphylaxis, decrease the tension in cyst wall and reduce the rate of recurrence [15].

**CONCLUSION**

Multiple and bilateral cerebral hydatid cysts is exceptional. Hydrodissection technique is the most useful method for intact delivery, but this technique can be dangerous in case of profound and eloquent area. Aspiration of the cystic contents through puncturing is an alternative method associated to medical treatment.

**REFERENCES**

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