Primary hydatid cyst of the parotid gland

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Accepted 11 February 2015

DESCRIPTION

We report a case of a hydatid cyst in the left parotid gland of a 35-year-old man, a farmer, who presented with gradually increasing swelling in the parotid region for the past 2 years. Clinical examination revealed a freely mobile soft-cystic mass of 4.5×3.5 cm. Ultrasound examination of the mass revealed a single uniloculated cyst of 4 cm diameter with clear content suggesting a retention cyst of the parotid gland. Fine-needle aspiration cytology revealed a few benign epithelial cells in thin clear fluid aspirate. Our clinical diagnosis of simple cyst/adenoma and the cytology findings were found consistent with the sonography findings, thus no further radiology evaluation was performed. The mass was surgically excised with the provisional diagnosis of retention cyst of the parotid gland. Grossly, a cystic mass of 4.3 cm in diameter, pearly white, thin walled, slippery, membranous, filled with watery fluid and uni-loculated, which was replacing most of the parotid gland, was found. On

microscopic examination, a lamellated ectocyst was demonstrated with compressed acini of the parotid gland ([figure 1](#)) confirming a diagnosis of hydatid cyst. A CT scan screening of the abdominal viscera and thorax did not reveal any other organ involvement by the disease process. Thereafter, Albendazole (800 mg/day) for 6 weeks was advised. On follow-up, the patient had no problems.

Although the liver and lungs are the primary sites of infection, hydatid disease is also reported from various sites of body.¹ The parotid gland is a rare site of this disease. In a large study from Lebanon, the parotid gland was involved in only one case.² *Echinococcus granulosus*, the causative parasite of hydatid disease, requires two mammalian hosts for completion of its life cycle. Dog is the primary host while man is an accidental intermediate host.¹

Learning points

- Hydatid cysts should be considered in the differential diagnosis of head and neck cystic swellings.¹ A detailed questionnaire about the patient's occupation, residence and family history may give a clue to include hydatid disease in the differential diagnosis.
- Always be prepared to deal with acute anaphylaxis while performing fine-needle aspiration cytology of cystic lesions, as there is a potential for the spread of daughter cysts.

Acknowledgements The authors are grateful to Dr VK Mahadik, Director of RD Gardi Medical College, for his encouragement and support during this work.

Contributors MP designed and drafted the manuscript. RD and NM acquired and analysed the data. All authors read and approved the final draft.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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Figure 1 Hydatid cyst. (A) Well-demarcated cyst with pearly white membrane occupying the whole of the parotid gland. (B) Photomicrograph showing the characteristic laminated membrane with compressed parotid tissue (arrow) (H&E stain ×5).

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To cite: Diwan R, Mogra N, Purohit M. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2014-209217

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