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## Dysphonia and Cervicomedastinal Mass, Very Unusual Presentation of Hydatid Cyst

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### ABSTRACT

*Hydatid disease, still endemic in developing countries, involves the liver and the lungs of the vast majority of cases. We report a very rare presentation of hydatid disease in a 35 year-old man with a cervicomedastinal mass and vocal cord paralysis, suspected of thyroid tumor. Surgery was curative and dysphonia disappeared completely. (Tanaffos 2010; 9(2): 61-63)*

**Key words:** Hydatid cyst, Cervicomedastinal mass, Dysphonia, Surgery

### INTRODUCTION

Hydatid disease is caused by the parasitic tapeworm *Echinococcus*. At present, infected cases are not only seen in developing countries, they are increasingly detected in industrial countries as well due to the large number of worldwide travelers and immigrants. A slowly growing echinococcal cyst generally remains asymptomatic until its expansion elicits symptoms. The liver and the lungs are the most common sites of involvement (1, 2).

Hydatid cyst rarely presents with dysphonia (3). A case of cervicomedastinal hydatid cyst, which was primarily diagnosed as a thyroid mass with mediastinal extension, is reported for its unusual presentation.

### CASE SUMMARIES

A 35 year-old man was admitted with a sudden voice change lasting for one month. He had no medical history or previous hospitalization.

On physical examination, a 3×4 cm, firm, non-tender cervical mass was found at the right base of the neck. No cervical lymphadenopathy was detected. Thyroid profile proved normal. Cervical x-ray revealed shifting of trachea to the left. Ultrasound examination showed a large hypoechoic mass posterior to the right lobe of the thyroid. Computerized tomography showed a hypodense cervicomedastinal mass with septation pressuring over the trachea and right lobe of the thyroid (Figure 1 A and B). Fine needle aspiration of the thyroid detected amorphous and acellular materials. Paralysis of the right vocal cord was found on laryngoscopy. Rigid bronchoscopy right before surgery revealed

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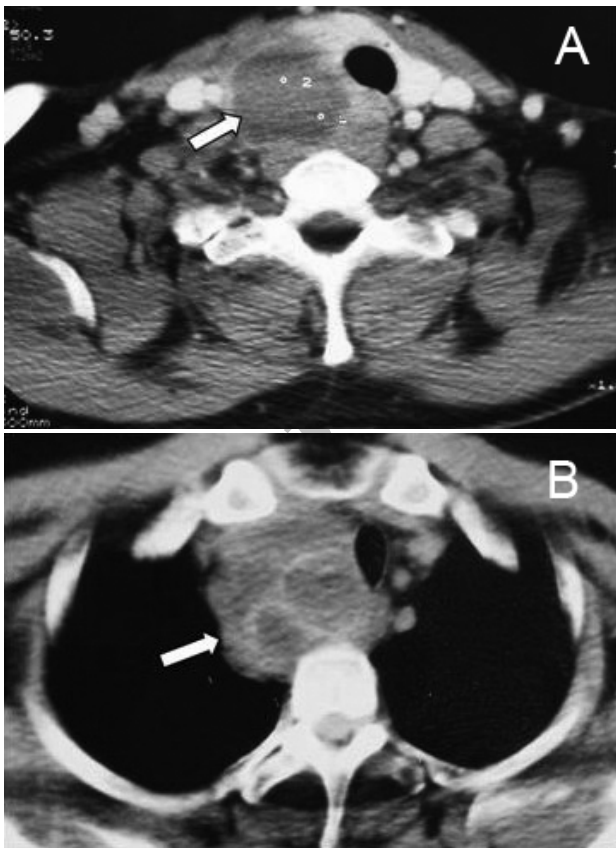
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narrowing of the trachea to nearly half of its normal size, due to an external pressure effect. On neck exploration, a normal thyroid with a mass adhering to its posterolateral side was found. Needle aspiration revealed some fluid as well as pieces of the laminated membrane of hydatid cyst. The surgical field was then covered with sponges soaked in the %0.5 silver nitrate solution, the cyst was evacuated and the laminated membrane was extracted as well. The pericyst cavity was scrubbed with some sponges soaked in the 0.5% silver nitrate solution and then drained with a Penrose drain. Postoperative course was uneventful. The drain was removed and the patient was discharged with albendazole on the 4<sup>th</sup> post-operative day. On follow up two years after surgery the patient's voice was normal and there was no sign of recurrence.



**Figure 1.** The hypodense cervicomedial mass (A,B).

## DISCUSSION

Human cystic echinococcosis is caused by *Echinococcus granulosus*. The parasite lives in the small intestine of the canine carnivores. Even though these animals are the definitive hosts for the parasite, they usually demonstrate no symptoms. Humans are the intermediate hosts and are exposed to the parasite through fecal-oral and hand-to-mouth routes of transmission. The ovum of the parasite is absorbed from the intestines of the intermediate hosts and enters into the portal drainage system (4).

Hydatid cysts develop most frequently in liver (65%) and lungs (25%) and rarely in the spleen, kidneys, heart, bones, central nervous system or other internal organs (1,2).

Primary hydatid cyst of the neck is uncommon; however, when present, it is often located in the musculature of the neck (5).

A benign cystic mass does not invade the recurrent laryngeal nerve; therefore, it is very unusual for a hydatid cyst of the neck to cause dysphonia (3).

In this case, it seems that limited space in the neck, particularly in the thoracic inlet and inevitable growth of the hydatid cyst, caused a severe persistent pressure on the recurrent laryngeal nerve and subsequent vocal cord paralysis.

In conclusion, we have to keep a high index of suspicion for hydatid cyst when evaluating a cervical mass causing dysphonia at least in endemic areas.

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