

HYDATID CYST OF THE THYROID

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ABSTRACT

Thyroid is a rare localization for hydatid cyst. Although the incidence of hydatid cyst is high in this geographic area, we have had only two cases of thyroid involvement in the last 10 years in Ghaem medical center in Mashhad.

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CASE REPORTS

Case 1

Mrs. M.G. a 16-year-old housewife was admitted because of right thyroid nodule. The thyroid nodule was 4×5 centimeters, firm and mobile. She had noticed this nodule

On physical examination she was 12-14 weeks pregnant and had no abnormal findings. Relevant laboratory results were as follows:

TEST	RESULT	NORMAL RANGE
T4	9.2	3.5-7 microg/dl
T3RU	48.31%	41-55%
FTI	2.6	1.3-4.6
BPI	9.7	4-8 microg/dl

Thyroid scan was not done because of pregnancy. Surgical treatment was suggested for this patient. Patient did not accept the surgery and signed herself out.

After one year she came back while the nodule had grown to 5×7 centimeters. At this time she accepted the surgery. The cyst was removed totally and pathologic diagnosis was hydatid cyst of the thyroid (Fig 1).

Case 2

Mr. Y.S. a 27-year-old shepherd was referred because of right thyroid mass and dysphonia of 3 months' duration. This mass was 3×5 cm. There was no palpable lymphadenopathy.

Physical examination disclosed displacement of the trachea and right vocal cord paralysis in paramedian position. In thyroid scan the nodule was cold.

Fine needle aspiration and cytology showed hooklets of larval form of hydatid cyst (Fig 2).

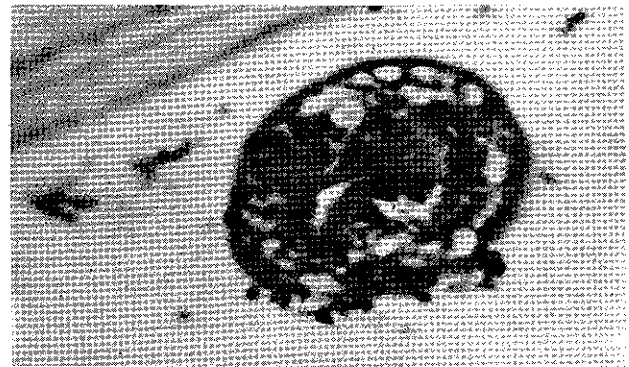


Fig 1. Biopsy specimen showing wall of echinococcal cyst with a scolex.

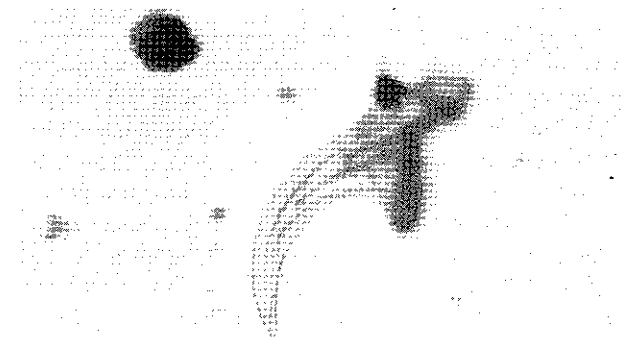


Fig 2. Aspiration cytology of thyroid nodule showing hooklets of scolex of echinococcal cyst.

To exclude hydatid cyst involvement of other tissues plain abdominal radiography, chest x-ray, liver and spleen isotope scan and liver ultrasonography was performed and were normal. CBC showed 8% eosinophilia. Casoni and agglutination tests were negative. Thyroid function tests were normal.

Surgical consultation was requested and the cyst was

Hydatid Cyst of the Thyroid

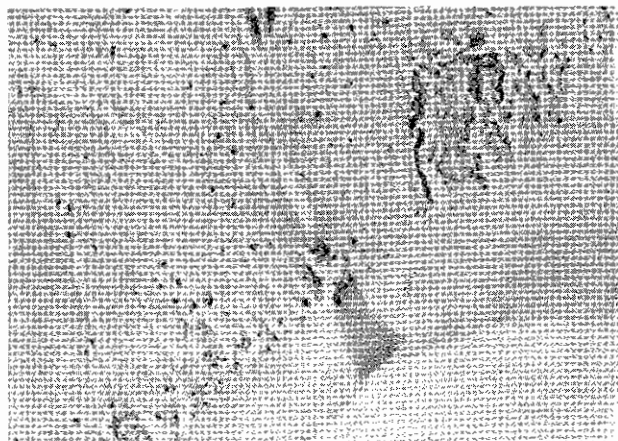


Fig 3. Biopsy specimen showing wall of echinococcal cyst.

removed totally without lobectomy. Pathologic diagnosis was hydatid cyst of the thyroid (Fig 3).

RESULTS

Thyroid is a rare localization of hydatid cyst. This should be considered in the differential diagnosis of thyroid nodules in endemic areas. Aspiration cytology of the nodule can be diagnostic in these cases. Treatment is surgical removal lobectomy is not necessary in these cases.

DISCUSSION

The incidence of hydatid cyst is high in the Middle East including Iran. The incidence is about 200 cases per year in the USA.¹ There are several interesting reports from Iran. There is a report of 1950 cases of hydatid cyst surgery in Tehran in a 22 year follow-up.²

In Mashhad university between 1969-1975 there was

537 cases of hydatid cyst surgery. Of these 290 were men and 247 woman.

When eggs are ingested by an appropriate intermediate host, the embryo escapes and penetrates the intestinal mucosa and enters portal circulation. Most are filtered out by the liver, but some enter the general circulation and may involve brain, kidney, bones and muscles. Rarely heart, spleen, ovary, prostate, and thyroid may be involved.³

According to 1950 cases that are reported from Tehran² organ involvement is as follows accordingly: liver, lung, peritoneum, spleen, and kidneys. Rare localizations are orbit, bone, brain, muscle, skin, breast, gall bladder, mesentery, pancreas, pleura, mediastinum, small intestine, colon, heart, pericardium, spermatic cord, bladder, joints and submandibular gland. Thyroid involvement is reported to be 0.1%.

During a 7-year-study of surgery of 537 cases in Mashhad, no thyroid involvement was reported.⁴ In another report of 290 cases from Mashhad there was no thyroid involvement.⁵

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