

# Primary hydatid cyst of neck: case report

## Abstract

A primary Hydatid Cyst in Neck of a young Female (30 years) with unusual presentation is reported. FNAC was avoided due to possibility of anaphylactic reaction. Pathological report of the cyst confirmed the diagnosis. Post operative course was uneventful. Review of different diagnostic tool as well as treatment options are mentioned.

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## Introduction

Hydatid Cyst (HC) is a zoonotic parasitic disease caused by larva form of *Echinococcus granulosus*.<sup>1</sup> It may affect humans accidentally.<sup>2</sup> The disease is endemic in Mediterranean countries, middle and Far East, South America, south and east Africa.

This disease occurs primarily in sheep grazing areas but is common worldwide because dog is a definitive host.<sup>3</sup> Hydatid cyst most frequently develops in Liver and Lungs in Humans. The involvement of all other organ including Brain, Heart, Bones, Skeletal muscle, Breast, Thyroid gland comprise only about 10% and are listed under unusual localization classification.<sup>3</sup>

## Case report

A 30 year old female presented with swelling on right side of neck for last 2 years. It was insidious in onset, slowly progressive and not associated with fever or history of trauma. There was no history of Dysphagia, odynophagia, hoarseness of voice or weight loss. No significant past and family history. Examination revealed an oval shaped 8 x 4cm soft, cystic, non tender mass in right lateral aspect of neck. Mass was pushing Sternocleidomastoid muscle posteriorly. It did not move with deglutition or protrusion of tongue. Overlying skin showed no sign of inflammation. There was no other swelling found anywhere in the body. Physical examination including neurological and cardiovascular system revealed no abnormality. Routine blood count, biochemistry was within normal limits. USG Neck was inconclusive suggesting Multiseptate cyst in right supraclavicular region. FNAC was avoided.

Since it was considered to be benign cystic mass of neck patient was subjected to excision of mass under general anesthesia. Intraoperatively cystic mass excised from right supraclavicular region, mass had pushed the anterior border of Sternocleidomastoid posteriorly and was abutting carotid sheath. There was no spillage of cyst fluid into the surrounding areas and histopathological examination confirmed the diagnosis. Post operative course was uneventful.

## Discussion

The diagnosis of Echinococcosis (*Echinococcus Granulosus*) in an atypical location can be difficult to make and frequently can only be established by histopathological examination of affected tissue.<sup>4</sup> Since puncture of these cyst can lead to anaphylactic reaction due to spillage of fluid. FNAC is controversial at present.

Head and Neck Hydatid disease is rare with less than 0.5% being reported,<sup>5</sup> including cases in the parotid gland, thyroid and parapharyngeal area.<sup>6</sup> The cyst in neck is limited to countries where echinococcosis is endemic and in patients with antecedents of prior hepatic and/or lung echinococcosis. It is very rare to find it as the primary presentation of hydatid disease.

Hydatid cyst in the neck is usually asymptomatic and slow growing, with occasional pressure symptoms.<sup>7</sup> Radiological investigations like USG, CT Scan and MRI are useful diagnostic method to visualize cystic mass by demonstrating daughter cysts, vesicle and internal septae.<sup>8</sup> When Hydatid disease is found a complete systemic examination should be carried out to rule out involvement of other organs.<sup>9</sup>

Treatment of choice is still surgery,<sup>10</sup> making sure the germ layer of the cyst (Producing the protoscolices) is removed. If the cyst ruptures the surgical fields should be surrounded by dressings soaked in hypertonic saline solution to avoid dissemination.<sup>9</sup> A Pericystectomy (removal of cyst with its outermost fibrous layer) is normally performed.

Therapy with Imidazole derivatives, fundamentally Albendazole, is recommended as complimentary treatment before and after surgery.

## Conclusion

We report this case for its unique presentation and unusual location. Imaging modalities although sensitive can sometimes not ascertain the exact diagnosis of Hydatid cyst. Thus clinicians as well as radiologist should consider Hydatid cyst in differential diagnosis of neck swellings.

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## Conflicts of interest

The author declares there is no conflict of interest

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