A CYST IN THE NECK- WHAT CAN IT BE?

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PRESENTATION OF CASE

An 82-year-old man presented with a smooth, large swelling on the right side of nape of the neck. The swelling was gradually increasing in size for last one year. The patient came for consultation in the outpatient department suspecting that swelling might be a malignant neoplasm. On clinical examination, a firm mass sized 5.5 cm X 2 cm on posterolateral aspect of the right side of nape of the neck was noticed. The swelling was free from the skin and subcutaneous tissue and appeared to arise from the underlying muscles and fascia but not fixed to the bone. Initially, it appeared to be a soft tissue tumour clinically.

DIFFERENTIAL DIAGNOSIS

Surgeons meet with hydatid cysts of the liver and lungs more frequently. However, clinical suspicion of hydatid cyst becomes unlikely when it appears in other parts of the body. In a case presenting with swelling over the posterior aspect of neck, differential diagnoses of tubercular lymphadenopathy, lymphoma, carotid artery aneurysms, carotid body tumours, cystic hygroma, cervical rib should be considered.

CLINICAL DIAGNOSIS

Routine investigations revealed increase (11%) of Eosinophil count and chest x-ray was apparently normal. However, ultrasonography of the region showed intramuscular cystic lesion at back of the neck measuring about 6 cm X 2.5 cm with evidence of surrounding inflammation. Separation of membrane at one part and a small pericystic collection was also noted. For further confirmation, MRI of the cervical region was done. It revealed a well-defined cystic lesion at posterior aspect of neck on right side at the level of C3-C5 vertebrae, with the possibility of the lesion being hydatid cyst (Figure 1). However, ultrasonography and MRI of the abdomen revealed no abnormality. There was no evidence suggestive of hydatid cyst in any other anatomical site.

PATHOLOGICAL DISCUSSION

Hydatid cyst or more aptly cystic echinococcosis (CE) can involve any organ system in the body. Organs affected by *E. granulosus* are the Liver (63%), Lungs (25%), Muscle (5%), Bones (3%), Kidney (2%), Brain (1%) and spleen (1%).^[1] The involvement is often characterised by a palpable mass.^[2,3]

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Clinical presentation of the hydatid disease depends on the site, size and extent of the lesion.^[4]

Figure 1. MRI of Head and Neck Region showing Well-defined Cystic Lesion at Posterior Aspect of Neck on Right side at the Level of C3-C5 Vertebrae

Figure 2. Wet mount Preparation made from Hydatid Cyst Fluid showing Morphological Structures Resembling Scolices of Echinococcus spp.

DISCUSSION OF MANAGEMENT

The patient was put on oral albendazole (10-15 mg/kg/day) for 4 weeks. Surgical exploration of the area was performed and the complete cyst along with one cm rim of the surrounding soft tissue including muscle was removed. The whole area was irrigated with suitably diluted 0.5% cetrimide solution. Haemostasis was secured and wound was closed over a drain.

Surgical manoeuvres namely, Radical surgery (total pericystectomy or partial affected organ resection), conservative surgery (open cystectomy) or simple tube drainage for infected communicating cysts are choices of surgical techniques. The radical procedures are associated with lower risk of relapses but the risk of complications was higher. Surgery followed by sterilisation of the cyst cavity is done by different agents and cetrimide solution (0.5%) provides the best results with least complications. The PAIR (puncture-aspiration-injection-reaspiration) procedure is a mode of non-invasive treatment option to remove hydatid

cysts. It is considered as an alternative treatment for hydatid disease and is often indicated for patients who do not respond to surgery or benzimidazole.^[5] Pre and Post-operative one-month course of albendazole or praziquantel for two weeks should be considered to sterilise the cyst and decrease the chance of anaphylaxis and to reduce the relapse rate postoperatively.^[6]

FINAL DIAGNOSIS

The diagnosis of muscular hydatid cyst was confirmed by histological examination and microbiological analysis (Figure 2). The wet mount prepared from the cyst fluid revealed morphological structures resembling scolex of *Echinococcus* spp. Hydatid IgG ELISA was positive on patient's sera. Post-operative course of albendazole for one month was given to the patient to reduce the chance of recurrence. The patient had an uneventful postoperative recovery.

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