

Madigan Army Medical Center

Referral Guidelines

Branchial Cleft Cyst

Diagnosis/Definition

A branchial cleft cyst is a remnant derived from the fusion planes between the developing head and neck. Normally these fusion planes obliterate but can persist as a potential space that can fill with fluid and get infected. A sinus implies an opening out to the skin or into the pharynx, and fistula opens into both. These cysts are categorized by their embryologic derivation. First branchial cleft cysts (10%) typically present in the periauricular area while second branchial cleft cysts (80-90%) can present anywhere along the anterior border of the sternocleidomastoid muscle (SCM). Third and fourth branchial cleft cysts are very rare but also present along the SCM.

Initial Diagnosis and Management

- History: These neck masses can occur at any age, however they typically present in childhood or early adulthood. Often there is a history of a URI associated with the presentation. They may enlarge over the course of 1-2 weeks and can spontaneously regress or persist. Not uncommonly they become infected, causing pain and drainage through the skin. Bilateral cysts can occur in 1-2% of patients. It is important to inquire about hearing and urinary problems, as these can be manifestations of Branchial-Oto-Renal syndrome. Key points in the history must focus on any increased risk for head and neck malignancies (please see **Neck Mass** referral guideline).
- Physical examination: Branchial cleft cysts are typically soft, mobile, non-tender masses that may be associated with a small skin pit. There are usually no skin changes unless they are infected. The physical exam should be directed to exclude other etiologies for a neck mass (please see **Neck Mass** referral guideline).
- Ancillary tests: An ultrasound can confirm the cystic nature of the mass.

Initial Management

If asymptomatic, a period of observation for 1-2 weeks for evidence of spontaneous regression is warranted in suspected branchial cleft cysts.

Ongoing Management and Objectives

The definitive management of branchial cleft cysts is complete surgical excision.

Indications for Specialty Care Referral

Patients with suspected branchial cleft cysts which are symptomatic or do not regress in 1-2 weeks should be referred for specialty care to ENT (Otolaryngology/Head & Neck Surgery) or to General Surgery.

Criteria for Return to Primary Care

The patient will be followed by the surgical service until adequately recovered from the treatment.

Last Review for this Guideline: **June 2010**
Referral Guidelines require review every three years.

Maintained by the Madigan Army Medical Center - Quality Services Division
Clinical Practice and Referral Guidelines Administrator