Cystic Hygroma Suggested on CT Examination

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Cystic hygroma (Cystic lymphangioma; hygroma cysticum colli) is a comparatively rare congenital malformation comprised of large lymph-containing cystic spaces that develop in the neck or lower portion of the face. Although it primarily involves the neck, it may extend upward and replace and enlarge the parotid gland, floor of the mouth, cheek, and tongue. It is often noted at birth or in young patients, but it is sometimes first seen in adults. This report describes a case of cystic hygroma of a young girl as suggested on the CT examination.

Case report

A 9-year-old otherwise healthy girl visited the Nagasaki University Dental Hospital with the complaint of a painless and persistent swelling on the left submandibular region. She had no dysphagia or odynophagia. Two months prior to the first examination her mother had noticed swelling of the submandibular region. The patient had not been on any medication and there was no family or past history of swelling of the neck.

The physical examination revealed an elastic soft swelling with diffuse border in the left submandibular region. The swelling extended to the homolateral oral floor. There was no local skin change, area of tenderness, palpable nodes, or any obvious mandibular bone change.

Conventional plain radiograms revealed no definite evidence of related odontogenic disorders or any other abnormality of the mandible. Due to the suspicion of a soft tissue tumor or cyst in the submandibular region, sonography and sialography were performed. The sonogram revealed a hypoechoic cystic lesion in the border of the submandibular gland. The sialogram of the left submandibular gland (Fig. 1) did not reveal an intrinsic abnormality but showed that the gland and Wharton’s duct were slightly displaced by an extrinsic mass. Both examinations suggested a soft tissue mass located just outside the left submandibular gland.

Consequently a CT examination was performed on a SOMATOM DR-H scanner. Contiguous axial scans with 2-mm section thickness were obtained. The scanning plane was parallel to the inferior border of the mandible.
The CT scan (Fig. 2, 3) reveals a cystic mass of 5 cm in its largest dimension located in the left submandibular and submental space, which displaced the submandibular gland posteriorly. The mass is circumscribed, thin-walled, homogenous of water density and

![Fig. 1](image1.jpg) Sialogram of the left submandibular gland. The gland and Wharton's duct are slightly displaced by an extrinsic mass.

![Fig. 2](image2.jpg) A circumscribed, thin-walled, homogenous water-density mass is noticed on CT.