Leiomyoma of the Submaxillary Area

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Although leiomyoma is found almost anywhere in the body, that in the area of head and neck is rare[1]. The diagnosis of leiomyoma is established till the histrogical examination is performed. Because there are no characteristic signs for leiomyoma. Recently, the author experienced a case of leiomyoma in the submaxillary area.

CASE REPORT

A sixty-three year-old house wife was admitted to our clinic on November 7, 1970, complaining of a painful swelling in the left submaxillary area. About five years prior to the admission she had noticed a swelling in the left submaxillary area. At that time she felt no pain. However, since the beginning of October 1970, the swelling has been accompanied with a pain. Subsequently, she received a medical management with antibiotics, but there was no response against the medication. Past history was negative, except cholecystitis about 10 years ago and hypertension. Family history was noncontributory.

Examination showed a well nourished woman with 192/90 mmHg of the blood pressure. The chest was clear by percussion and auscultation. The abdomen was normal. E.C.G. finding was within normal limits. Routine blood examinations revealed an anemia. Urine examination was normal. As shown in Figure 1, there was a diffuse swelling at the left submaxillary area, but there was no redness. A thumb head sized mass with smooth surface was palpable just beneath the submaxillary gland. The tumor like mass was elastic hard. No obvious changes were noted in ears, nose, pharynx and larynx. A sialography revealed a dilatation of the peripheral ducts of the left submaxillary gland, but no signs for tumor or stones. (see Fig. 2)

A surgical procedure to remove the mass and submaxillary gland was attemped on November 20, 1970. Under general anesthesia a skin incision about 4 cm in length was made 2 cm beneath the mandibula along it on the left side. The left submaxillary gland was exposed and removed. Then the mass was palpable through a thin connective tissues. The mass was separated manually and finally removed.

Figure 3 shows the site of this mass. The mass was located deeply at the inferior region of the submaxillary gland and was hidden partially with the venter posterior of the digastric muscle. Post-operative course was uneventful, and she was discharged on the 20th post-operative day.

As shown in Figure 4, the removed mass was $4 \times 4 \times 2.5$ cm in size and elastic soft with smooth surface. The transection of this mass was yellowish-gray in colour (see Fig. 5). The submaxillary gland was $4 \times 4 \times 3$ cm in diameter.

Leiomyoma was diagnosed by a histological examination of the mass: the mass was consisted of intertwinding bundles of spindle cells with fairly uniform size. These spindle cells with elongated blunt-ended nuclei were larger than normal smooth muscle cells (see Fig. 6). To differentiate it from fibroma or neurilemmoma, Van-Gieson stain, Azan stain and PTAH stain were performed.

Although these stains did not make sure of the differentiation, the diagnosis of leiomyoma was prefered on the ground of the characteristic shape of the cells and their nuclei.

COMMENT

While the kidney, urinary bladder, spermatic cord, round ligament, veins, bronchus, orbit and eye are common site for this tumor, leiomyoma in the deep peripheral soft tissue, mediastnum and retroperitoneum is rare[1]. According to Skolnik et all[2], a majority of the swelling in the lateral neck region in adults is caused by malignantly neoplastic disease. No reports of leiomyoma were found in 2348 cases of the neck mass in the Illinois Research and Educational Hospital during ten years period from 1950 to 1960[2]. Stout et al[3] observed that only three out of 170 cases of leiomyoma were found in the neck.

The histo-pathologic examination has been of benefit for establishing its diagnosis. In general, leiomyoma is composed of non-striped muscle cells orientated in a more or less parallel manner within bundles, which are arranged in a whorled manner. A small amount of supporting connective tissue runs amongst the individual cells[4]. The stroma of most tumors contains varying amount of collagen, and in several cases[5][6] some portions of the tumor are undergone myxomatous degeneration. Leiomyoma in the peripheral soft tissue shows a less characteristic aspects, and it is difficult to differentiate leiomyoma from neurilemmoma or fibroma[1].

As the other author's reports, in my case, the diagnosis of leiomyoma was also difficult in spite of some specific stains as mentioned. At the first histo-pathological examination, it was suspected a leiomyosarcoma, and after operative irradiation was performed. As there is no hope of surely preoperative diagnosis, the exactly postoperative care seems necessary for leiomyoma.

SUMMARY

In this paper, a case of leiomyoma which developed from the submaxillary area was reported. Leiomyoma occurred in the head and neck is rare, and the differential diagnosis from fibroma or neurilemmoma was difficult in this case.

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Fig. 1. Swelling of the left sided neck.

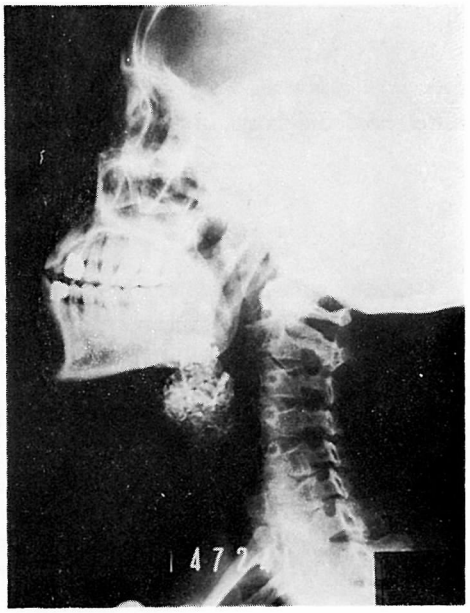

Fig. 2. Sialography of the submaxillary gland on the left side.

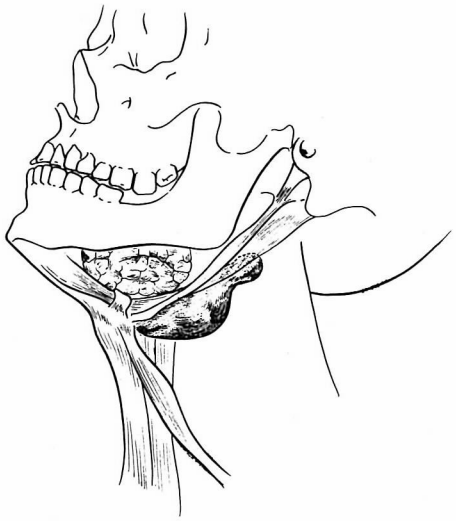

Fig. 3. A view of the relationship within the tumor and its surrounding tissue.

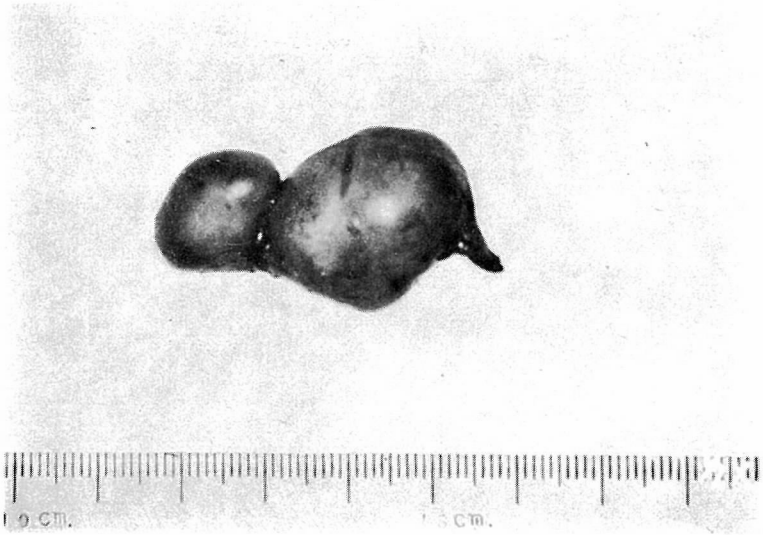

Fig. 4. A view of the removed mass.

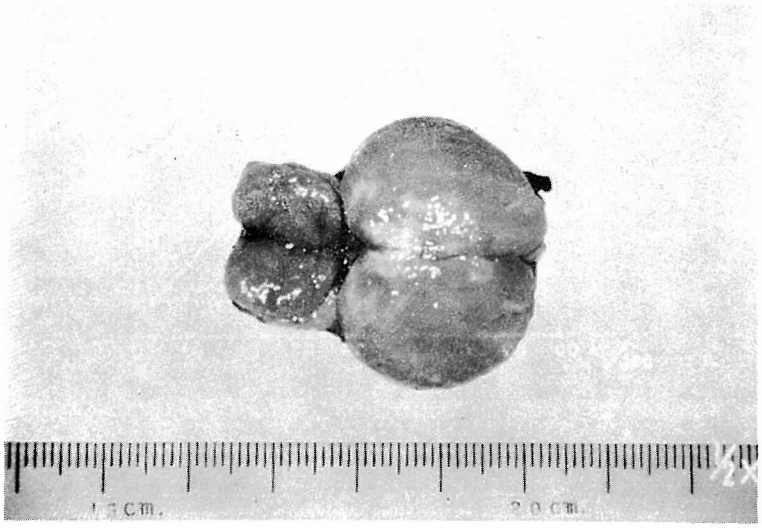

Fig. 5. A view of the section of the removed mass.

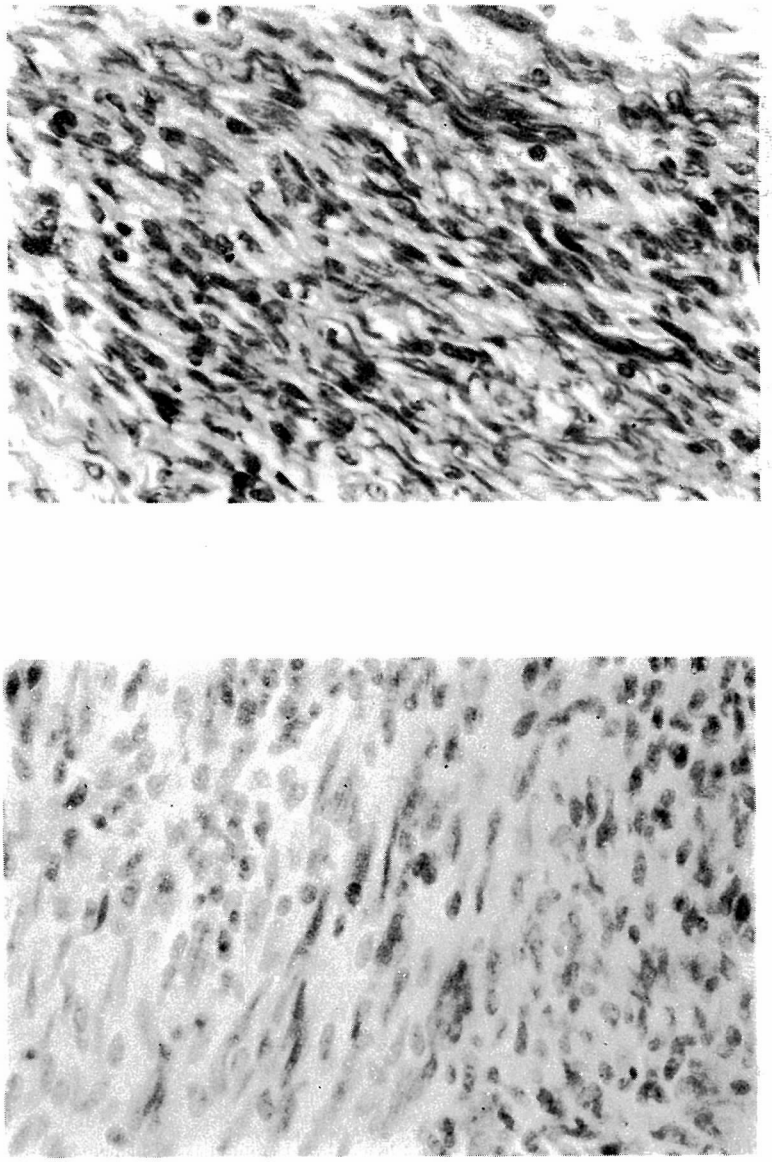

Fig. 6. Photomicrograph of leiomyoma of the submaxillary area.
(H. and E. ×400)