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Lipoma of the Parotid Gland

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We report two cases of lipoma of the parotid gland which present as a non-tender, freely movable and intraparotid mass. Lipomas are common soft tissue neoplasms but found very rarely in the parotid gland, and so are often not considered in the initial differential diagnosis of parotid gland tumor. We believe that these tumors are cured by simple excision, and thus superficial parotidectomy is enough for treatment.

Key Words : *Parotid, Lipoma*

INTRODUCTION

The lipomas, consisting entirely of mature fat, are a common soft tissue neoplasm in the region of the back, shoulder and neck. The lipoma is only rarely observed in the region of the parotid gland. Till 1991, about 140 cases of lipoma of parotid gland have been reported in the world literature (McDaniel, 1991), but no case of parotid lipoma has been described in Korea.

Because of the relative rarity of lipomas occuring in the parotid region, we report two cases of lipoma of the parotid gland and which appeared clinically as a salivary gland neoplasm.

CASE REPORT

Case 1

A 21-year-old woman discovered a nonpainful lump on the right side of her face. She thought that the swelling had been present for about 2 months and said that it had been slowly increasing in size. Clinical examination revealed a well-defined rubbery mass in the area of the right parotid gland near the angle of the mandible. There was no detectable cervical lymphadenopathy and no history of trauma or infection. The most likely clinical diagnosis was lipoma or mixed tumor, because facial CT revealed a well demarcated low density mass in the parotid gland. The mass contained linear and mottled densities, compatible with lipoma (Fig. 1). A right superficial parotidectomy was performed.

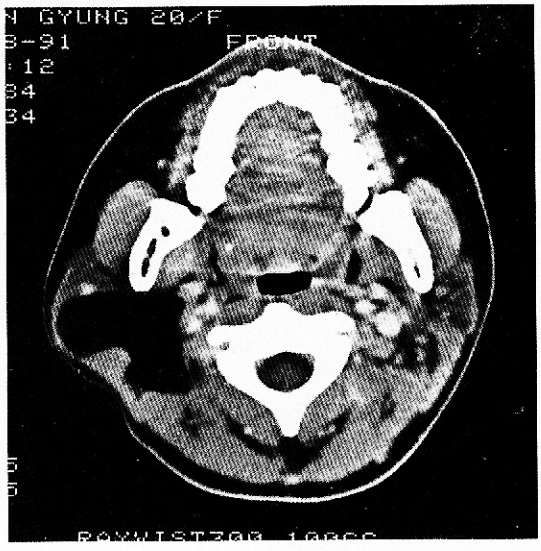

Fig. 1. CT scan of the parotid mass reveals a well demarcated low density mass in the parotid gland which contains linear and mottled densities.

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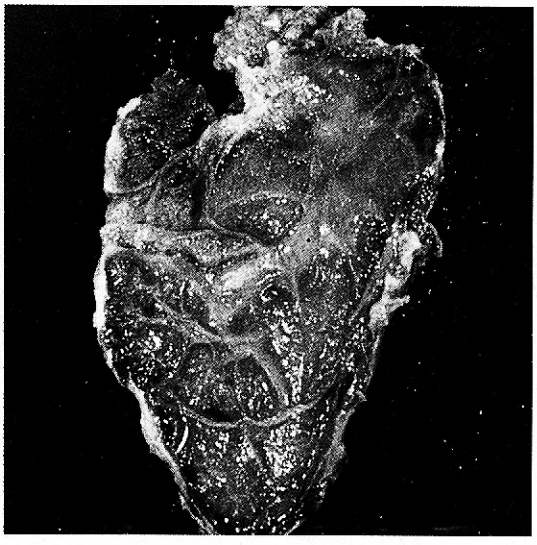

Fig. 2. On section, the cut surface shows homogenous adipose tissue showing interlacing fibrotic bands without hemorrhage of necrosis.

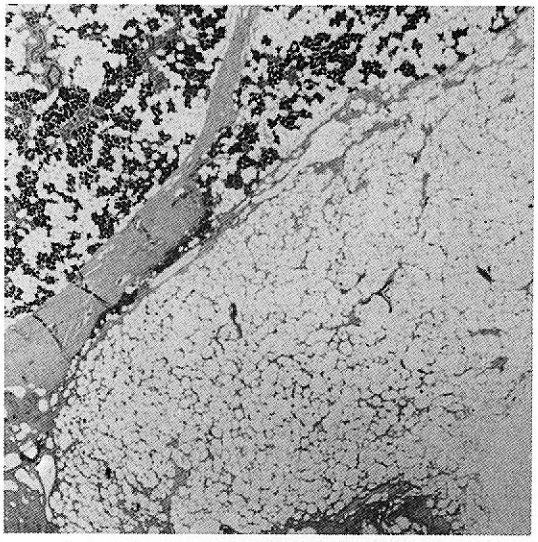

Fig. 4. Specimen reveals a well-encapsulated lipoma arising in the parotid gland with fatty infiltration (Hematoxylin and eosin stain, ×100).

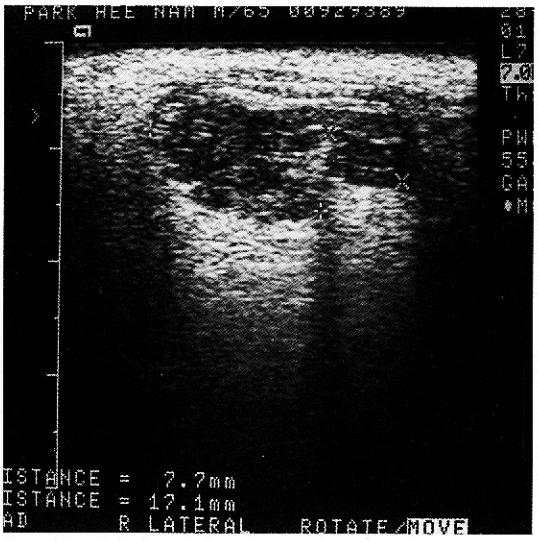

Fig. 3. Neck ultrasonography demonstrates a hypoehoic, multilobulated mas lesion within the superficial lobe of the right parotid gland.

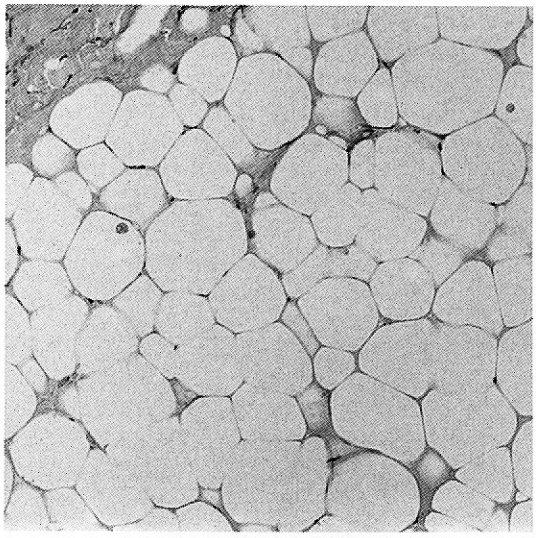

Fig. 5. Specimen reveals the lipoma which is histologically composed of mature adipocytes showing clear, distended vacuolar cytoplasm and flattened small peripheral nuclei (hematoxylin and eosin stain, ×200).

The gross examination disclosed a well-circumscribed, soft, and yellowish mass measuring 7×3×3-cm. On section, cut surface showed yellowish homogenous adipose tissue showing interlacing fibrotic bands without hemorrhage or necrosis (Fig. 2).

At the present time, about one half year since operation, the patient had no recurrence or other difficulty related to the parotid glands.

Case 2

A 66-year-old man presented with a 6-year history of a slow growing right preauricular mass. Physical examination revealed a soft, well-localized, and nontender movable mass which was in the right parotid gland. Neck ultrasonography demonstrated a hypoehoic, and multilobulated mass lesion within the superficial lobe of the right parotid gland measuring 2.5 ×2.0×1.5cm (Fig. 3). The radiologic appearance was benign mass of the parotid gland.

The mass and superficial lobe of parotid gland were excised and the facial nerve was not damaged during the surgery. The mass seemed to be well capsulated. Histologically, the tumor was a well-encapsulated lipoma consisted of mature adipose tissue (Fig. 4). The process of fatty infiltration was diffuse, appearing in all random sections. There was some atrophy of the fat cells, but there were no lipoblasts or cells with hyperchromatic nuclei as in well-differentiated liposarcoma (Fig. 5). Microscopic examination showed an intracapsular parotid lipoma. The patient sustained no postoperative complications and no recurrence on 7 months after operation.

DISCUSSION

Lipomas are benign tumors which histologically are similar to mature adipose tissue, but the presence of a fibrous capsule serves to distinguish them from simple aggregation of fat (Kim and Reiner, 1982). The bulk of benign lipomatous tumors are grouped into five categories, such as lipoma, variant lipoma, heterotopic lipoma, infiltrating or diffuse lipomatosis and hibernoma. Lipomas of the parotid gland region comprise an interesting group of lesions that, because of their rarity, are seldom considered in the preoperative differential diagnosis. As for lipoma of the parotid gland, our review of a number of large series of parotid gland tumors, totalling 6, 101 cases, revealed a frequency of 1.2 percent (Baker et at., 1981) and to 1991 about 140 cases had been reported in the medical literature (McDaniel, 1991). The frequency of lipoma in the parotid gland varied between 0 to 4.4% percent (Byars et at., 1957 ; Cass and Whelan, 1968). To our knowledge, the largest reported series of lipomatous lesions of the parotid gland is that of Walts and Perzik (1976), who classified thirty lesions as pure lipomas and three as lipomatosis. A lipoma was present in addition to lipomatosis in one of their cases. Other reports of parotid gland lipomas largely consist of single case reports.

The principal consideration in the differential diagnosis of a mass in the parotid region is salivary gland neoplasia, benign or malignant. There are, however, no unique clinical features by which the lipoma can be separated from other parotid gland tumors. This lesion appears as a slow -growing, asymptomatic, nontender mass, and the most common preoperative impressions are Warthin tumor and benign mixed tumor (Baker et al. 1981). Clinically, a soft, nontender, and well-defined tumor in the parotid in an elderly man is considered a Warthin tumor until proven otherwise. It has been suggested that lipomatous lesion in the deeper tissues of the head and neck should be regarded as well differentiated liposarcoma (Stewart et al., 1994), but a report illustrated a case of deep lobe parotid lipoma (Weiner and Pahor, 1995). Among the many imaging techniques, CT and MRI are now the imaging modalities of choice for evaluating parotid masses and a certain case illustrates the benefit of axial and coronal CT to elucidate the extent of a parotid lesion before surgical exploration (Malave et al., 1994).

Lipomatous lesions of the parotid occur in patients from 7 to 72 years of age (average 50-60 years) and are 5-10 times more common in males (Walts and Perzik, 1976). Regarding the causes of lipoma, heredity, obesity, diabetes, trauma, radiation, endocrine disorder, insulin injection and corticosteroid therapy are occasionally implicated as a possible etiologic factors. In these two cases, we did not find any possible etiologic factors.

The main objective in surgical exploration of any questionable parotid lesion is to remove a possible malignant tumor under the most favorable condition. The surgical approach to lipoma in the parotid region should be the same as for any other suspected benign parotid tumor with due regard for the presence of the facial nerve in the operative field. The treatment of choice is complete surgical excision. Recurrence after adequate resection is very rare. One should plan on performing a standard lateral lobectomy with identification of the facial nerve.

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