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Olgu Sunumu ve Literatür Derlemesi

Myoepithelioma of the Parotid Gland: A Rare Case

Parotis Bezi Myoepitelyomu: Nadir Bir Olgu

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Abstract

The present case describes the clinical and histopathologic features of a benign myoepithelioma of the parotid gland. A 70-year-old woman presented with clinical symptoms of a unilateral, gradually developing, preauricular swelling**.** Examination revealed a 7x5 cm tumor in the area of the left parotid gland. The tumor was removed and sent to the pathology department. A diagnosis of myoepithelioma was established. Myoepitheliomas of salivary glands are extremely rare, comprising approximately only 1% of all salivary gland tumours. Their histopathologic features, immunohistochemical findings, and clinical behavior are not well characterized. Together with the literature, consideration are presented on the histopathologic evaluation, differential diagnosis of these lesions.

Key Words: Parotid gland, Myoepithelioma, Benign.

Özet

Bu olgu sunumunda parotis bezinin benign myoepitelyomunun klinik ve histopatolojik özellikleri tanımlanmaktadır. Yetmiş yaşındaki bayan hasta tek taraflı, tedricen büyüyen preauriküler şişlik semptomları ile başvurmuştur. Muayenede sol parotis bezinde 7x5 cm boyutlarında tumor tespit edilmiştir. Eksize edilerek patoloji bölümüne gönderilen tümör myoepitelioma tanısı almıştır. Myoepitelyomalar tükrük bezi tümörlerinin yaklaşık %1 'ini oluşturan nadir tümörlerdir. Histopatolojik özellikleri, immunohistokimyasal bulguları ve klinik davranışları iyi karakterize edilmemiştir. Literatür eşliğinde bu lezyonların histopatolojik özellikleri ve ayırıcı tanısı sunulmuştur.

Anahtar Kelimeler: Parotis bezi, Myoepitelyoma, Benign.

Introduction

Myoepitheliomas are uncommon neoplasms, accounting for less than 1% of all salivary gland tumors (1,2). Most are benign, but some can be malignant (1-3). They are monomorphic tumors composed of sheets and islands of myoepithelial cells (2). Diagnosis of myoepithelioma through light microscopy is possible and immunohistochemistry is done to facilitate the diagnosis. It is present one case of myoepithelioma of parotid gland.

Myoepithelial cells are ectodermally derived contractile cells that act as smooth muscle cells. They can be routinely identified in many normal tissues that have secretory functions, such as the major and minor salivary glands, lacrimal glands, sweat glands, breast, and the prostate (4). In a normal gland, myoepithelial cells are located between the epithelial cells and the basal lamina of acini and intercalated ducts. Some authors believe that myoepithelial cells play a definite role in several salivary gland tumors, such as mixed tumors, adenoid cystic carcinomas, and salivary duct carcinomas (1,4). Others contend that these cells play only a minor part in these tumors, and they are still undecided whether this role is active or passive (5).

Myoepitheliomas consist exclusively of myoepithelial cells, and they are likely to represent one of the two cellular components of mixed tumors. The tumor occurs over a wide age range and has no sex predilection. It usually presents as a painless, slow growing mass of benign nature, but sometimes it may be locally aggressive. The parotid gland is referentially involved as compared to the other salivary glands (1,2).

Case Report

A 70-year-old woman complained of a swelling and pain on the left side of his face that had been present for approximately 10 months. Examination revealed a 7x5 cm swelling in the area of the left parotid gland. The growth was well demarcated, and it had a smooth external appearance. It had a moderately firm consistency, was fixed to neighboring tissues, and was slightly painful on palpation. Despite the large size of the lesion, the facial nerve remained intact, and there was no cervical lymphadenopathy.

Ultrasonography revealed a well-demarcated 6,7x6, x4,3 cm mass. A solid component and internal echoes were found in the posterior portion of the growth. There was a limited normal parenchyma echo in the anterior portion of the lesion. The patient underwent a total parotidectomy with preservation of the facial nerve.

Tumor was located in the parotid gland measured 6.5x4x1.5 cm, soft in consistency and grayish-white in color. Microscopically, a well-delineated tumor mass was separated from the surrounding salivary gland by a thick hyalinized connective tissue capsule. The encapsulated tumor was composed entirely of spindle-shaped cells with small, fusiform extensions of eosinophilic cytoplasm.

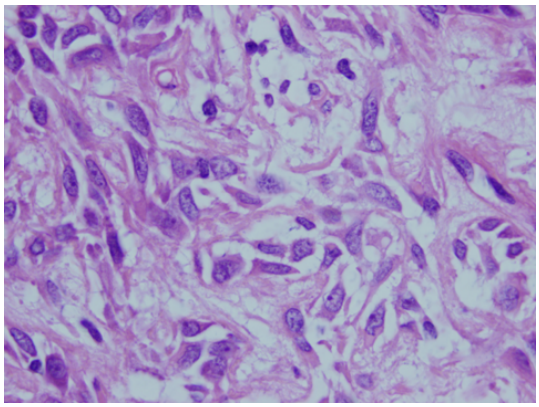

Figure 1. Spindle cell myoepithelioma of parotid gland. Tumor showing uniform spindle and ovoid cells with eosinophilic cytoplasm arranged in fascicles and no mitotic activity (H&E X400).

The tumor cells were spindle-shaped, with centrally placed nuclei containing delicately dispersed chromatin and a thin nuclear envelope. The cells were bipolar, with slightly eosinophilic cytoplasm which varied from granular to fibrillar (Figure 1).

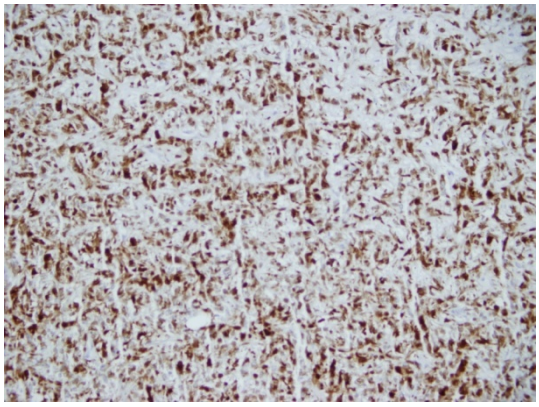

Figure 2. S100 p IHC staining of the spindle cells of tumor (S-100 protein X200)

There was no necrosis, cellular atypia, or mitosis in tumor. The stroma was characterized by the presence of an amount of amorphous and acellular material in which a few fibroblasts and small collagen fibers were scattered. Chondroid differentiation was not identified in neoplasm. Tumor cells were strongly immunoreactive for cytokeratin, vimentin, human alpha-smooth muscle actin, CD10, P63, GFAP and S-100 protein (Figure 2) and negative against antibodies to muscle specific actin and desmin. With all these findings, the pathological diagnosis was confirmed as spindle-cell myoepithelioma. At date of the present report (5years) our patient has not show any signs of recurrence.

Discussion

Myoepitheliomas account for fewer than 1% of all salivary gland tumors (2). In both sexes are affected with equally frequency (2,6,7). Most tumors occurs in adults, but rare examples have been recorded in children (8). The most common locations of myoepithelioma of the head and neck are the parotid gland and the palate. Parotid lesions never cause facial nerve dysfunction or cervical lymphadenopathy, and those of the palate rarely ulcerate (6).

In our patient, tumor originated in the parotid. She had not any cervical metastasis or facial nerve dysfunction, despite the large size of the mass. Myoepitheliomas usually range from 1 to 5 cm in diameter, and they are well demarcated, smooth, and uniformly white, tan, or gray. Malignancy in a myoepithelial tumor depends on demonstration of infiltrative growth, cellular atypia, frequent mitoses, and coagulative necrosis, while size of the tumors aren't determinant (1,2). Myoepithelioma can develop with or without a capsule. Parotid myoepitheliomas are surrounded by a thin fibrous capsule; palatal lesions are not (6).

On a histological point of view the myoepithelioma is classified in the follow cells types: spindle, plasmacytoid, reticular, epitheliod, and clear, additionally mixed histological form were described (2,9). The spindle cell type is the most common overall and is typical for parotid myoepitheliomas (9). The plasmacytoid type is less common but the most frequently encountered pattern in palate tumors (10). Collagen is sparse and chondroid areas are never found (6). Due to their infrequency and multiplicity of histopathology, myoepitheliomas present difficulties in diagnosis and classification. Cellular varieties can be misdiagnosed as malignancies. Even though the entity is rare and the histopathology might be quite varied, diagnosis of myoepithelioma by light microscopy is possible and to facilitate the diagnosis immunohistochemistry is also performed. In our case, the tumor was consisted entirely of spindle-shaped cells. Tumors had poor intercellular stroma, but necrosis, cellular atypia, and mitosis were not present.

In developing salivary glands, a common stem cell is responsible for the development of luminal epithelial cells and myoepithelium. Therefore, it should be expected that proliferating neoplastic cells in a myoepithelioma would occasionally differentiate these luminal cells (7). With immunocytochemical techniques, myoepithelial cells stain positive for cytokeratin, S-100 protein, and actin, and they stain negative for desmin (1,2,11,12). Normal salivary gland myoepithelial cells stain negative for vimentin, while neoplastic myoepithelial cells stain positive for it (7,12). The tumor in our patient was strongly immunoreactive for cytokeratin, vimentin, and S-100

protein and smooth muscle actin; negative against antibodies to desmin. To identify myoepithelial tumors as either benign or malignant on histologic grounds is difficult. The criteria for a diagnosis of malignancy are the presence of cytologic abnormalities, an increased mitotic rate, and particularly an invasive growth pattern (2,3). These criteria were not met in our case.

Cell type is not related to differences in biologic behavior, recurrence rate, or the patient's age (12). Spindle-cell myoepithelioma must be distinguished from an extracranial meningioma, a pleomorphic adenoma, a nerve sheath tumor, and a leiomyoma. A plasmacytoid myoepithelioma must be distinguished from a plasmacytoma (6,10).

Although it has been proposed specific diagnostic criteria to differentiate the myoepithelioma from pleomorphic adenoma, controversy is arising in this issue. Sciubba and Brannon consider to myoepithelioma as a subtype or final spectrum of pleomorphic adenoma, because their biological behavior and distribution (7). On the other hand, World Health Organization classifies to myoepithelioma as an independent entity (2).

In such a way, it has been proposed that if the neoplasm contains less of 5% of ductal and acinar components must be named myoepithelioma (2). It is our opinion, as well as that of Barnes et al (6) and Dardick et al (9) that salivary adenomas are part of a spectrum, with monomorphic adenoma and myoepithelioma at the extremes and a wide range of pleomorphic adenomas in between, depending on the type and degree of gene expression that is coupled with neoplastic transformation. Myoepitheliomas tend to exhibit benign behavior and complete surgical excision is appropriate therapy (1,2). While myoepithelioma has no specific clinical features, it is accepted pathologically as a distinct entity. To avoid unnecessary extensive surgical resections, a correct diagnosis is of the utmost importance. The treatment of a myoepithelioma is generally considered as complete surgical excision with margin of healthy borders.

Myoepithelioma of the parotid gland is rare in daily medical practice. The tumor should be kept on mind in the differential diagnosis of salivary gland tumors.

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