[原著]A case of ipsilateral parotid tumor and intracranial tumor

A case of ipsilateral parotid tumor and intracranial tumor

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Parotid tumor is a relatively rare tumor. Furthermore malignant tumor originated from the parotid gland is scarece[1].

As the authors have recently experienced a very specific and rare case in which a malignant mixed tumor of the right parotid gland was ipsilaterally complicated with a tumor of the intracranial mesocranic fossa, an observation on this case is to be reported here.

CASE: 41 year-old, male

Chief complaints: Painful swelling at the part of the right ear and the right facial paralysis.

Past history: Not remarkable.

History of present illness: Though the patient has noted a swelling at the part of the right ear for last 2 years, but has let it alone until the speed of swelling became abrupt, and pain, dysacusis, buzzing in the ear and feeling of ear-obstruction began to occur. Further ipsilateral facial paralysis has appeared 5 days ago.

Clinical findings: The right external auditory meatus was filled with tumor, there existed a hard tumor 4 x 3 cm in size all around the ear attached part, but it had no mobility. A lowering of susceptibility of the sense of taste at the right part of tongue, inability of wrinkling the forehead, and right peripheric facial paralysis were observed. There existed no swelling of the cervical lymphnodes.

The results of laboratory examination were not abnormal.

Audiometry revealed a horizontal conductive hearing loss of the right ear by about 50 dB.

Ear X-ray film indicated coinciding defects of the honey comb and septum at the site of the tumor, and palely brightened shadow of the temporal bone were observed(Fig. 1).

At the first consultation, an exploratory excision was planned, but the patient did not appear for 6 months, and finally came to the hospital with such aggravated general conditions as inability of oral ingestion, strong feeling of general fatigue, severe headaches and occasional vomiting.

Judging from the fact that the tumor of the ear was accompanied with facial paralysis in addition to violent local pain, and also accompanied with headache, nausea, vomiting and gait disorder, and moreover X-ray film showed the temporal bone became thin, malignant mixed tumor was suspected, but on the other hand, as a possibility of infiltration of tumor from the intracranium was suspected, an operation including exploratory excision was performed to confirm the nature of the tumor, with a thought on a drainage to the cisterna pontis to lower intracranial pressure in case that the tumor came from the intracranium.

Surgical findings: The tumor was hard, and adhesion with the peripheral tissue was strong, but ablation was possible, and though the temporal bone became thin, no defect was observed, and no

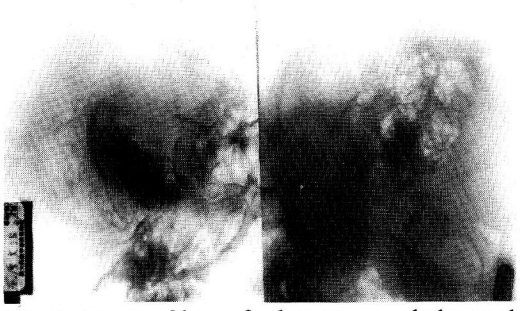

Fig. 1. X-ray film of the temporal bone by lateral oblique (Schüller's) position

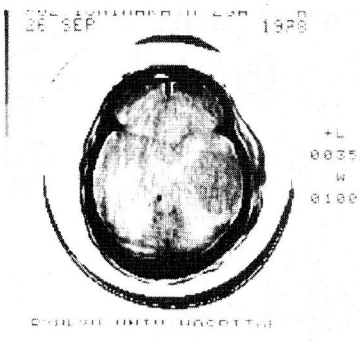

Fig. 2. Computerized tomography scan showing a clearly bordered tumor in the right mesocranic fossa

communication of the tumor with the intracranium was observed. A complete extirpation of the tumor was performed.

In spite of the complete extirpation of the tumor, enuresis and dazed condition appeared from the first day after the operation, then sinking of the tongue-root and disappearance of light reflex were observed, and moreover the eyeground showed such brain-pressure-exacerbation findings as papilla-edema and bleeding at the yellow spot part, and further an intracranial tumor doubted. In CT scanning, a clearly bordered tumor was observed at the right mesocranic fossa. The right cerebral ventricular cornu anterius was pressed and edematous (Fig. 2). A diagnosis of tentrial herniation was made, and in spite of the administration of mannitol and steroid preparation to lower brain pressure, the patient died at the 4th day after the operation.

The pathohistological findings of the tumor of the ear showed either adenoid-cystic or myxo-matous appearance, with cellular atypia and infiltrating proliferation. A diagnosis of malignant mixed tumor was made (Fig. 3).

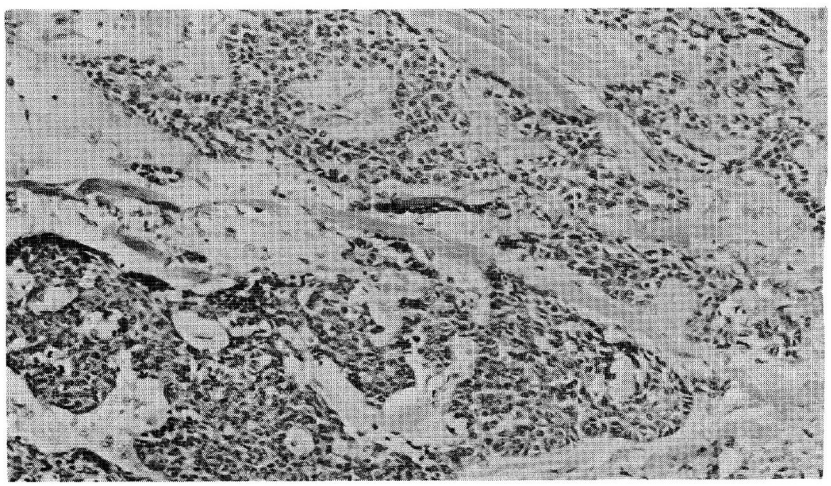

Fig. 3. Histopathological finding of mixed tumor in the right parotid gland (Hematoxyline-eosine stain)

On autopsy findings of the intracranium, a relatively soft tumor of 3 x 5 x 7 cm in size with covering and adhering to the meninx of the right mesocranic fossa was found, thus a pathohistological diagnosis of medullo-blastoma was made (Fing. 4 and 5).

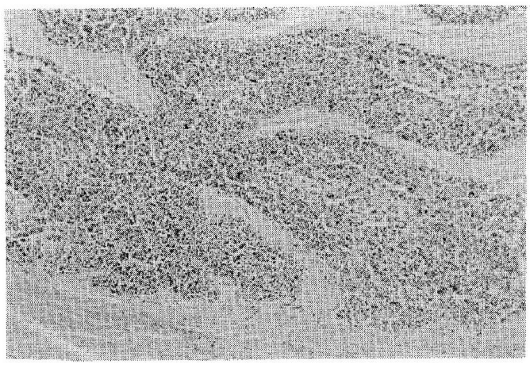

Fig. 4. Histopathological findings of medullo-blastoma in the right mesocranic fossa (Hematoxyline-eosine stain; low magnification)

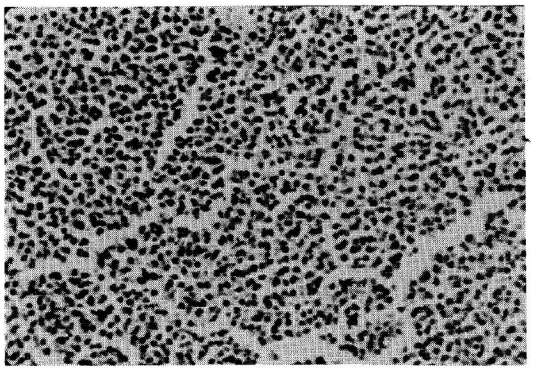

Fig. 5. Histopathological findings of medullo-blastoma in the right mesocranic fossa (Hematoxyline-eosine stain; high magnification)

DISCUSSION

It is said that the incidence of parotid tumor is 1.1 per 100,000 population. Among salivary gland tumors, the rate of parotid tumor is high, and the appearance of benign tumor is highly more frequent than that of malignant one. Benign tumor tends to appear in female, and malignant one does in male, but no difference between the right and left sides is observed. The age of distribution of benign parotid tumor centers on 20 – 40 years of age, and that of malignant one does on over 40 years of age[1].

As it is said that it takes 5 years until the size of a mixed tumor becomes two folds in size, it is believed that any case of tumor growing rapidly should be thought to be malignant. As for the site of malignant tumor, it is found in the superficial lobe by 62%, and in the deep lobe by 38%, while it is said that the former appears more frequently at the posterior part of the ear. In malignant tumor, there exist cases in which facial paralysis becomes a chief complaint as the tumor rapidly grows, thus it is known that facial paralysis in addition to pain is a sign to suspect malignant tumor. As for metastasis, cervical lymphnode metastasis is most frequent, and sometimes to the lung, bone, liver, brain, spine vertebral column and subcutaneous tissues. As differentiating points of malignant tumor from benign one, they can be summarized as follows[2]:

1) Rapid growth
2) Solid and vague border
3) Early appearance of pain
4) Facial paralysis
5) Infiltration to the surrounding tissue
6) Lymphogenous or hematogenous metastasis
7) Ulceration or necrosis

As a supplementally diagnostic method of parotid tumor, sialography can be mentioned. In malignant tumor, it appears as an irregularly bordered and vague feature[4]. The site of the tumor can be more clearly established by laminated sialography[5]. Scintiscanning by RI is also helpful, and for example, when using 99m Tc, the tumor is seized as a shadow defect[1)4)].

In any case, though the final diagnosis should be based on patho-histological diagnosis, but in the case of parotid tumor, it is said from the prognostic viewpoint that it had better not to perform biopsy[3)4)].

As regards its therapy, it is recently recommended to perform conservative parotidectomy with the preservation of facial nerve and neck dissection. In general, as radiosensitivity for salivary gland tumor is low, thus taking this fact in mind, for the time being, it can be thought appropriate first to perform an operative treatment, then coincidingly followed by radiotherapy and chemotherapy[2)].

There exist some cases provoking facial paralysis after the operation, but it is said that almost all of them are restored. Further, Frey's syndrome appears with an incidence of 5 – 10% starting from a few months after the operation, and continues for several years[1)].

As for 5-year-survival rate, it is 55% for those patients who had no facial paralysis before the operation, but is 9% for those patients who had facial paralysis, thus there existes a very large difference. The average survival period is 4.1 years for the patients without facial paralysis, while it is so short as 1.6 years for those with facial paralysis[6)].

Though it is said that it takes from several years to over 10 years until mixed tumor becomes malignant, but when thinking on the fact, once becoming malignant, the prognosis is surely aggravated, it can be thought that it needs an early operative treatment.

SUMMARY

A malignant mixed tumor of the parotid gland was complicated with a medullo-blastoma occurred at the ipsilateral mesocranial fossa. As this case is a very rare and specific experience, the results of its observation were reported and a bibliographical discussion on parotid tumor was made.

The summary of this paper was reported at the 8th Regular Meeting of Okinawa Branch, the Oto-Rhino-Laryngological Society of Japan.

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