ADVANCED SQUAMOUS CELL CARCINOMA OF THE TEMPORAL BONE

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ABSTRACT
Objective: A case series was performed to evaluate and to describe our experience of advanced squamous cell carcinoma of the temporal bone.


Result: We found 4 cases. All the cases found in male with histopathologically revealed keratinizing squamous cell carcinoma. All cases is in advanced stage (4th stage). We treated the patients with chemotherapy.

Conclusion: The prognostic of this malignancy is depends on the stage. Early diagnostic is needed to increase the survival rate of the patient.

INTRODUCTION
Malignant tumors in the middle ear and mastoid are very uncommon. Of these very uncommon tumors, the squamous cell cancers are the most prevalent. Squamous cell carcinoma of the temporal bone is a rare and invariably aggressive neoplasma. Most of the patient came in advance stage of the tumor.

CASE REPORT
There are 4 cases of carcinoma in temporal bone recorded from 2015 to 2017, consisting of 4 male patients with an age range of 25-63 years.
CASE 1

Male patients aged 25 years, came to RSUP H. Adam Malik Medan with complaints of a mass on the preauricular and retroauricular of the right ear which enlarged very rapidly in 4 months. Ear pain encountered, vertigo present, face looks not symmetrical, bloody discharge was found. History of discharged from right ear since child intermittently was found. From right ear examination in preauricular region: mass (+) with irregular surface, immobile with size 8x6x5, ulcer (+), pus (+), blood (+). The auricle is within normal limits. Ear canal mass (+) that fulfill the ear canal; pus (+), blood (+). Mastoid region: mass (+), irregular, immobile with size 10x8x6cm, ulcer (+), blood (+). Face: House-Brackman V. The biopsy on the patient and histopathologic results are keratinizing squamous cell carcinoma. Then the patient was treated with full dose cisplatin + 5FU.

CASE 2

The 49-year-old male patient came with a mass in his right ear since 1 month ago. Ear pain is present, sense of fullness in the ear is found, blood stain discharged was found, hearing difficulty presents. History of recurrent ear discharged since childhood is present. An otoscopic examination of the right ear canal found the mass filled the ear canal and easily bleed. From a temporal CT scan the axial planes a cloaking is seen in association with the destruction of almost all mastoid and left-right tympanic cavities to the lateral and right temporalis with some parts of internal carotid arteries and sigmoid sinuses directly adjacent to the lesion. Soft tissue of the right retroauricular region with an air portion is seen. Right hearing bones is not visible. The external right acoustic canal is veiled. Biopsy performed on a patient and histopathologic results are keratinizing squamous cell carcinoma. Patients treated with chemotherapy Ifosfamide + paclitaxel + cisplatin.

CASE 3

The 55-year-old male patient came with a lump complaint on the back of his left ear since 1 month ago. Ear pain encountered, Fluid accompanied by blood from the ear canal is found, headache is present, hearing loss present. The patient complained of his face tilted to the right and the food tasted bland. Recurrent ear discharged since childhood is present. From otoscopy of the left ear canal, the mass that fulfill the EAC and easily bleed is seen, bloody discharged (+). Mass was found in the retroauricular region, hard consistency, irregular, immobile, 5x5x3 in size. Face:
House-brackman IV. From the temporal CT scan left external canal mass is seen, suspected with external canal carcinoma, different diagnosed with cholesteatoma with left mastoid destruction, left temporal os, os zygomaticum, sphenoid os, occipital os and left tympanic cavity and intracranial invasions of posterior fossa and left temporalis. Biopsy performed on the mass of the left ear canal. The result of histopathology is keratinizing squamous cell carcinoma. The patient is treated with full dose cystplatin + 5FU chemotherapy.

CASE 4

The 63-year-old male patient came with a complaint that there was a mass that bleeds easily when touched for three months on the left ear. Left ear pain is encountered. Bleed from the left ear is encountered. Ear pain was found: From otoscopy in the left ear canal, mass (+) easily bleed and filling the left ear canal. From the axial planes in temporal CT scan, the left mastoid appear filled in cloaking and destruction is seen from left mastoid os to the left auditory ossikel. Internal and external left acoustic canalis filled with cloaking. The left mandibularis appears to be destructive with the dislocation of the left mandibular condyles towards the anterior. Biopsy on the mass of the ear canal, histopathologic results are keratinizing squamous cell carcinoma. Patients were treated with full dose cystplatin + 5FU chemotherapy.

DISCUSSION

4 cases above has been presented, all of which are men with the age of 25, 49, 55 and 63 years old. Stancovic mention that in the 21 patients, 17 were men and four were women aged 37-79 (median 66)⁴. Bacciu et al mentions of 45 patients, 25 male patients and 20 female patients with an age range of 36-89 years. But unlike Gillespie et al mentions that of the 15 patients included in the study, 4 were male and 11 were women with an age range of 48-77 (mean: 66).

The main complain in all patients above is otalgia, otorrhea and bloody mass on the ear area. The same is mentioned by some researchers who mentioned otalgia and bloody otorrhea are the main complaints encountered in patients with bone malignancy. Gillespie et al mention bloody otorrhea complained 73% and otalgia complained 59%. An important opinion is expressed by Yin, et al who made the case series of 6 squamous cell carcinoma patients on temporal bone in 2015. All of his patients complained about bloody otorrhea and mass in the ear area, so he thought it was important to suspect a malignancy in the ear if the patient complained of bloody ear accompanied
with the mass. A history of chronic suppurative otitis media was present in the 3 patients above. It has already been revealed from several sources that there may be a chronic infection link to the risk factor for malignancies. The 2 patients above complained of facial nerve paralysis from several sources revealed that this allegedly worsened the prognosis.

Malignant tumors in the temporal bone are very rare. Only about 1 - 5 people suffer / 1,000,000 population. Of these very rare tumors, squamous cell cancers are the most common. The histopathological outcome of all our patients was keratinizing squamous cell carcinoma. Gidley, et al which examined 157 patients ke'ganansan temporal bone, most histopathological types are squamous cell carcinoma 38.9%, 14% of basal cell carcinoma and adenoid cystic carcinoma 7.6%.

Until now, there is no staging classification to determine the staging and therapy in patients with malignant bone temporal. However, the frequently used staging system is The University of Pittsburgh staging system. This is a TMN staging modified in 2000 and 2002 whose status of T is seen from the Temporal CT Scan. 1,2,3,5

If based on this staging system, all our patients are stage 4. Some researchers disclose that most patients come with an advanced stage (stage 4). Bacciu, et al., In 45 patients with temporal bone malignancy, 42.2% were diagnosed with stage 4.

Belgium Consensus Conference of March 2002 establishes a therapeutic protocol based on tumor stage or tumor extension.

This protocol seems to be in line with Bacciu, et al., Stankovic and several other researchers. Lavieille, et al.; States that T4 status is contraindicated for surgery due to the inability to perform radical excision and high morbidity associated with total resection of the temporal bone. 1,2 All of our patients were classified into stage 4 so we decide to provide palliative therapy with combination of cisplatin and 5FU chemotherapy. A better result is reported with the use of cisplatin when compared with methotrexate. The combination of cisplatin and 5FU is probably the best.1

The prognosis of this disease is highly dependent on the first diagnosis staging and treatment based on its stage. Several studies have demonstrated an improvement in survival rates in patients undergoing surgery followed by radiotherapy measures compared with patients who had only surgery. At an advanced stage the prognosis is poor. In his journal, Bacciu, et al., Mentions the existence of a facial nerve paralysis is a sign of poor prognosis.
CONCLUSION

Temporal bone malignancies is a rare malignancy of the head and neck areas. The most common type in histopathology is squamous cell carcinoma. The most common major complaints in patients are otalgia, bloody otorrhea and mass in the ear area. Bloody otorrhea with mass may be a sign of malignancy in the temporal bone. There is currently no official national or international consensus to determine the staging and treatment protocols for patients with malignancy of the temporal bone. The University of Pittsburgh staging system which was modified in 2000 and 2002 has been used as the standard for determining tumor stage of the disease. Most of the patients came in advanced stage. The surgery followed by radiotherapy proved to show better results and increased in survival rate. But at an advanced stage, operative action is contraindicated due to the high morbidity and mortality. Therefore, in Stage 4, palliative therapy is given which in this case series we chose combination of chemotherapy with cisplatin and 5FU.