

Ear Cancer-Dilemma in Staging and Management

연세대학교 의과대학 이비인후과학교실
이 원 상

Introduction : Ear cancer is a very rare disease with an incidence of 1 in 1,000,000 and many controversies still exist regarding its staging system, surgical and postoperative radiotherapy because little study have been accomplished so far. In this study, major prognostic factors affecting treatment of ear cancer and the result of adjunctive radiotherapy were analyzed on the basis of treatment experiences in Severance hospital. The factors affecting staging classification and appropriate therapeutic measures depends on stage were proposed.

Patients and Methods : Retrospective analysis of medical records of 36 patients was performed. Squamous cell carcinoma were 20 cases, adenoid cystic carcinoma were 13 cases and basal cell carcinoma were 3 cases. The average follow up period was 40 (6–218) months. Modified Pittsburg Staging Classification was adopted in staging. Local canal excision (n=5), lateral temporal bone resection (n=11), subtotal temporal bone resection (n=19), total temporal bone resection (n=1) and adjunctive radiotherapy were performed depends on stage. The analysis of prognostic factors such as stage, pathologic subtype, adjacent structural involvement (facial nerve, inner ear, temporal mandible joint, parotid gland, infratemporal fossa, dura, intracranial structures), lymph node involvement, distant metastasis, resection margin, postoperative radiotherapy were investigated. Kaplan-Meier survival analysis was used for survival rate calculation and statistical significance was calculated using Log-rank test ($p < 0.05$).

Results : The survival rates of the ear cancer showed ra-

pidly decline in stage 3, 4 and factors which affect survival were differed according to the pathologic subtypes. For the squamous cell carcinoma, prognosis was poor with TM joint, dura or intracranial involvement and for the adenoid cystic carcinoma, poor prognosis was related to parotid or infratemporal fossa involvement. All cases showed poor prognosis where facial nerve involvement was present. Lymph node involvement occurred only in squamous cell carcinoma (n=3), but did not affect the survival rate. Distant metastasis occurred mostly in adenoid cystic carcinoma which showed poor prognosis. Postoperative radiotherapy did not affect the survival rates for both treatment groups.

Conclusion : Poor prognostic factors such as facial nerve involvement in both pathologic type and parotid involvement in adenoid cystic carcinoma should be categorized to advanced stage. It is thought that lateral temporal bone resection is the appropriate treatment for stage 1, 2 disease which showed good prognosis with such treatment. As for stage 3, 4 diseases, more extensive resection is required to achieve better prognosis. Also, the pathologic subtype of the tumor must be carefully considered in staging classification and in deciding the therapeutic strategy. In this study, adjunctive radiotherapy did not play a vital role in survival of advanced ear cancers and so the importance of surgery as a primary treatment must be emphasized and for those cases, total temporal bone resection could be considered as the main treatment.