Molecular Targeted Therapy For Head And Neck Cancer

Dae Ho Lee, M.D.

Research Institute & Hospital, National Cancer Center, Korea

Traditional therapy of head and neck cancer has entailed a multimodality approach, employing surgery, radiotherapy and chemotherapy, and improved in quality of life, organ preservation, and survival during the last decade. However, most patients with advanced or metastatic/recurrent disease will succumb to their disease.

Recently, the evolution of novel therapies, so called targeted therapies, has been amazingly rapid owing to molecular discoveries and technology, and has translated into meaningful progress in some tumors, such as gastrointestinal stromal tumors with imatinib and non-small cell lung cancers with erlotinib or bevacizumab. Also, in head and neck cancer there were several targets based on the molecular biology of the disease, and inhibitors for those targets have been suggested as potentially efficacious. Among them, epidermal growth factor receptor (EGFR)-targeting inhibitors, including gefitinib or erlotinib and cetuximab, have demonstrated their activity in the clinical trials, while other agents are currently undergoing extensive evaluation in preclinical or early clinical studies. However, we know that monitory of the patients with head and neck cancer were benefit from these EGFR inhibitors, and molecular-targeted agents succeeded only in patients having specific mutation or genetic change. It suggests that the identification of relevant target and refinement of patient selection will be required to optimize the molecular-targeted therapy.

Despite the advance of molecular biology, numerous questions are still open as to molecular-targeted agents. Therefore, continued preclinical and clinical research with translational study is required to establish the role of molecular-targeted therapy in head and neck cancer. Of note, these tumors are often readily accessible to biopsy, which has great advantage for translational study and therapeutic targeting.