

Minimum Invasive Low-dose-brachytherapy for Oral Cancer

Department of Radiation Oncology, Tokyo Medical and Dental University, Tokyo, Japan

Hitoshi Shibuya, M.D.

Brachytherapy delivers a high radiation dose to a limited volume while sparing surrounding normal tissue, and severe soft-tissue damage and bone complications are not expected after the introduction of computer dosimetry and the use of spacer during treatment. For the curative treatment of oral cancer, low-dose-rate brachytherapy source is selected from among the several linear and small permanent implant sources available, not only according to the tumor site but also according to the patient's physical and mental condition.

As the number of oral cancers in the very elderly patients (over 75 years old) has been increasing in these days, brachytherapy has come to be selected as curative and less inva-

sive treatment modality. The 3-year and 5-year control rates of early (stage I & II) tongue cancer in 125 patients 75 years old and older are both 86% and not different from the results of younger aged patients.

To the present time, we have treated over 2,000 patients with early oral cancers including 1,100 cases of tongue cancer. Following the successful treatment of early oral cancers by brachytherapy, two major problems and one minor problem may confront the patients and physician. The major problems are neck node metastasis and a second primary cancer of the respiratory or upper digestive tract, and the minor problem is radiation-induced cancer.