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Iridium Implantation in T1 and T2 Cancers of Anterior Tongue: Report from B. P. Koirala Memorial Cancer Hospital, Nepal

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Author(s)

Vijayakumar Narayanan, Bibek Acharya, Chaurasia Pradumna Prasad, Dejkumar Gautam

ABSTRACT

Early stage cancers of tongue are treated traditionally with a wide local excision or hemiglossectomy, but the preservation of normal speech and swallowing are hampered. Most of the patients are treated with external beam irradiation to achieve the best locoregional control as only a limited number of tongue cancers can be excised. Underdeveloped nations with finite resources are still dependent on cobalt based external beam radiotherapy and sometimes a Linear Accelerator with two dimensional planning. This treatment has many limitations, as the large radiation fields irradiate not only the tumor but also normal tissue. The sequelae include mucositis, dry mouth, teeth and gum injury, spinal cord damage and rarely mandibular necrosis. Intensity modulated radiotherapy, which can abrogate these side effects, is not available to these patients. Irradiation using implanted solid radioactive sources into the tumor tissue is a viable option in this context. This kind of treatment is termed as brachytherapy and if the implant is introduced into the tissue then it is interstitial brachytherapy. This report details our experience in interstitial implantation, planning, dosimetry and treatment. Diagnosed cancers of anterior 2/3rd of lateral border of tongue with T1 N0M0 or T2 N0M0 stages were subjected to Iridium implantation under general anesthesia. Orthogonal films were taken and planning done with brachyvision treatment planning system. High dose rate radiotherapy was delivered as per the prescription. Excellent local control of the tumor was achieved with no undue morbidity to the adjacent structures. The patients were asked to undergo regular follow up. Surgical salvage was advised in cases of nodal recurrence. Interstitial implantation is a treatment that can be safely administered in early stage cancers of the tongue. This has remarkable efficacy and is also a patient friendly procedure.

KEYWORDS

Oral Cavity Cancer; Interstitial Brachytherapy; Implantation; Remote After loader

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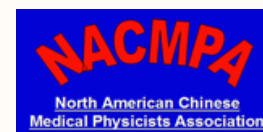
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