

Radiation Therapy for Post Parotidectomy Fistula

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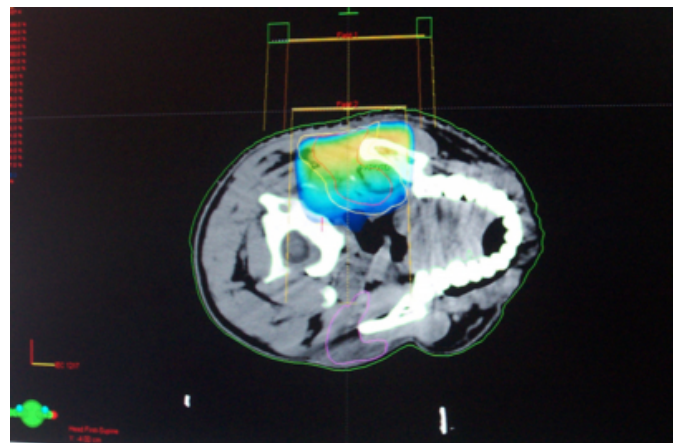
Abstract

The incidence of parotid fistula following the surgery has been reported to be about 14%. The parotid fistula can be a very troublesome problem for the patient as it compromises the quality of life. It may result in wound dehiscence, and infection. Though several treatment modalities have been described in the literature but there is no consensus. The various management options include complete parotidectomy, tympanic neurectomy, radiation therapy, pressure dressings, anticholinergics and, of late, local injection of botulinum toxin. Radiation therapy had been in use as early as in 1936, but the number of cases is too scanty to make this as established modality. We describe a case of postparotidectomy fistula successfully treated by external beam radiation therapy.

CASE REPORT

A 24 year old male patient presented to the Oto-Rhino-Laryngology department of our hospital in June 2001 with the complaint of a discharge from the right ear. Past history revealed that the patient had undergone surgery in a private hospital 5 months ago for a parotid abscess. He was subsequently diagnosed to have a fistulous connection between the right parotid gland and the external auditory canal and was taken to the operating room for a partial parotidectomy along with fistulectomy. He was free of symptoms until December 2003 when he noticed a persistent ear discharge more so during swallowing of food and liquids. Contrast enhanced CT scans demonstrated a salivary fistula in the deeper part of ear canal with a sialo-pneumocele in the parapharyngeal region. A catheter was inserted in the sialo-pneumocele to drain the discharge, but he continued to have the persistent ear discharge. Surgery was not contemplated in view of the risk of injury to the facial nerve and therefore planning was made for ipsilateral parotid irradiation. Planning CT scan was done in supine position with the head turned to left side and immobilized with a cast. Both parotids were marked along with the other important adjoining structures like eyeball, spinal cord etc. The target volume consisted of the right parotid and a further 5mm surrounding margin. A dose of 30 Gy in 15 fractions over 3 weeks was delivered by the Linear Accelerator (Clinac 2300 CD) with mixed Photon and Electron beam (Fig. 1). He had complete relief of ear discharge at the end of the course of radiation.

Figure 1



DISCUSSION

Although radiation therapy was considered in the past as an appropriate treatment of parotid fistulas, a recent survey revealed that only 48% of clinical oncologists use radiation therapy for this clinical problem. Radiation is generally used when other measures have failed (1,2). Radiation has been known, since a long time, to reduce the salivary secretion and causes xerostomia after head and neck irradiation. Doses above 40 Gy by conventional fractionation cause permanent xerostomia in most of patients.

In our case, the parotid fistula persisted after 2 surgeries and the insertion of a catheter. The patient was still considered for a repeat surgery but in view of the risk of facial nerve injury, the patient opted for parotid irradiation. We have prescribed 30 Gy in 15 fractions because of minimal residual

parotid tissue. The entire fistulous track should be included in the portal as we have done in our patient, simultaneously sparing the opposite parotid gland.

References

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