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The Use of Radiation Therapy for Benign Parotid Lymphoepithelial Cysts in A Patient with HIV

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Abstract

Purpose: Benign lymphoepithelial cysts (BLEC) of the parotid gland are an associated, although uncommon, lesion in individuals with HIV infection[1]. The data on the use of radiation therapy (RT) for these potentially painful lesions is limited, but outcomes have generally been favorable. In a 2016 retrospective cohort study that included 72 HIV-positive patients with BLEC treated with RT, it was found that radiation (median dose = 24 Gy) provided effective long-term cosmetic control without significant toxicity[2]. This case presents a rare benign indication for radiation therapy - in the treatment of BLEC of the parotid gland in a patient with HIV. The case is also unique in that the left parotid gland was treated initially with the intent of treating the right gland sequentially after assessing response.

Methodology: We present a case of a 59 year-old male with bilateral parotid lymphoepithelial cysts secondary to HIV. The patient initially presented with painful lumps in the submandibular and parotid glands dating back to 2017. Initial imaging workup, consisting of neck CT and ultrasound, demonstrated nonspecific enlargement of cervical lymph nodes and palatine/lingual tonsils, with subsequent scans showing fluctuating changes. PET scan revealed moderate uptake in cervical lymph nodes and subsequent US-guided FNA suggested a reactive process. Further workup, including an MRI, confirmed the presence of bilateral fatty parotid glands without discrete lesions, consistent with lymphoepithelial cysts. Conservative management was employed, but the patient expressed interest in radiotherapy as a treatment option due to persistent discomfort. After shared decision making, the patient decided to proceed with treatment. Following CT simulation, the left parotid gland was treated to 24 Gy in 12 daily fractions. A 3D conformal technique using two opposed coplanar oblique 6MV photon fields was used.

Results: The patient tolerated treatment well, only reporting mild hypogeusia over the course of treatment. The patient denied pain, skin changes, and xerostomia. Left parotid gland swelling was noted to decrease by the end of treatment.

Conclusions: This case highlights the potential role of radiotherapy in managing HIV-associated parotid lymphoepithelial cysts, offering an alternative to traditional conservative or surgical approaches, utilizing a delayed sequencing approach to assess benefit and tolerability.

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