CASE REPORT

Hodgkin’s disease in the nasopharynx

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Summary

Nasopharyngeal presentation of Hodgkin’s disease (HD) is an uncommon event with relatively favorable prognosis. It is predominantly seen in males and most papers are case reports. Here, we report an unusual case in a female patient with stage IA₃ HD treated by radiotherapy (RT), and achieving complete disease remission, lasting 26+ months.

Key words: complete remission, extranodal, Hodgkin’s disease, nasopharynx, radiotherapy

Introduction

The most common presentation of HD in the head and neck region is lymph node enlargement while the lymphoid tissues of Waldeyer’s ring are uncommonly involved [1,2]. Treatment options include sequential chemoradiotherapy or RT alone [3]. Because of the rarity of this occurrence, most patients are reported in review articles or described in case reports [4-6]. Herein we present such a case and discuss the treatment choice and results of this rare case.

Case presentation

A 45-year-old woman presented with a 2-year history of progressive blurred vision, ears pain and nasal obstruction. Complete otorhinolaryngological endoscopic examination revealed a smooth-surfaced mass in the nasopharynx, obstructing the right nasal passage. The mass completely obliterated the right side of the nasopharynx, extending moderately to the left side. Following punch biopsy, histopathology revealed a mixed cellularity HD (Figure 1). Immunohistochemical features showed positive CD15 and CD30 expression. Magnetic resonance imaging (MRI) of the corresponding region detected a 3×3×2 cm mass in the nasopharynx without pathological lymph nodes in the neck (Figure 2a).

Neither complete physical examination nor chest and whole abdominal computed tomography scans revealed any abnormality, except a millimeter-hypodense lesion in the middle part of spleen. This lesion was reported as benign on ultrasound imaging. Full blood count and serum biochemistry were normal at the time of diagnosis, except a slightly raised erythrocyte sedimentation rate (22 mm/h). Bone marrow examination was not performed because of patient’s reluctance.

The patient was submitted to RT with the diagnosis of stage IA₃ HD. It was decided to use a classical field of nasopharyngeal carcinoma. Therefore, the field covered the primary tumor site, all bilateral cervical lymphatic regions, and supraclavicular lymph nodes. RT was performed with a linear accelerator producing 6 MV photons. The total RT dose administered to tumor and cervical lymph nodes was 4140 cGy, while supraclavicular nodes received 3060 cGy.

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At the 6th month of post-RT a total regression of the primary site was detected on endoscopic examination. At the first year post-RT MRI also showed complete response, except a mucosal thickness on the right side of the nasopharynx (Figure 2b). The patient was disease-free at the 26th month post-treatment as evidenced by normal clinical, imaging and blood / serum biochemistry results. She only had a mild nasal drainage and moderate xerostomia as a consequence of RT.

Discussion

Waldeyer’s ring is an uncommon site for HD. An isolated primary mass of the nasopharynx without any lymphatic extension is considered very unusual. In a review of lymphomas in the head and neck region there were 76 HD and 235 non-Hodgkin’s lymphomas (NHL) patients, who had similarities in terms of gender and cervical lymph node involvement. However, only 3 (4 %) HD patients presented with extranodal involvement including the nasopharynx, whereas the corresponding number of NHL patients was 54 (23 %). This difference was statistically significant (p<0.001) [1]. In another review covering a 24-year period there were only 7 out of 210 (3.3 %) HD patients with primary disease in the nasopharynx. All of them were male with median age 40 years (range 25 - 47). The histological subtype of 3 patients was lymphocyte predominance while 2 patients had mixed cellularity, 1 patient nodular sclerosis and another 1 interfollicular pattern histology. They were treated with either radiotherapy or chemoradiotherapy. The median follow-up time was 72 months (range 1 - 128) and all of the nasopharyngeal HD patients obtained complete remission. Male predominance and the favorable prognosis were noticed for this HD location [2].

Notwithstanding the diversity between different groups regarding the optimum schedule, treatment of HD is still applied according to the general guidelines. Hence, anatomical stage is the most crucial factor for treatment decision. In early-stage disease RT can be administered either alone or within the frame of combined strategies [7]. Furthermore, the rarity of nasopharyngeal occurrence does not change the management of this extranodal disease with RT which may be used as a single modality in therapeutic doses. O’Reilly et al. treated a 62-year-old male patient with stage IA HD with RT, achieving complete response, but the follow up at the reporting time was only 14 months [4]. Nemetallah et al. reported a similarly
treated 42-year-old male patient with total regression of the tumor with RT. Yet, there were no details for further follow-up [5].

In this paper, we delineate a primary nasopharyngeal HD which is hardly ever diagnosed in females. There were no other abnormal findings, except slightly raised erythrocyte sedimentation rate and RT was delivered in adequately tumoricidal doses to those very radiosensitive lymphoma cells. Although the follow-up time is relatively short (26 months), there is no evidence for disease recurrence.

Treatment side effects were minimal, not necessitating any supportive care. In the presented case, the treatment field comprised only the primary tumor with its lymphatic region, so that moderate / severe early and late side effects are improbable to appear with this solely involved field radiation administration.

References