

Synchronous Presentation of Nasopharyngeal and Renal Cell Carcinomas

Cem Boruban, Ozlem Yavas, Kadri Altundag, Orhan Sencan

Department of Medical Oncology (CB, OY), Selcuk University Faculty of Medicine, Konya, Turkey, Department of Medical Oncology (KA), Hacettepe University Faculty of Medicine, Ankara, Turkey, and Department of Medical Oncology (OS), Ankara Social Security Association Hospital, Ankara, Turkey

ABSTRACT

We report a rare case of synchronous presentation of nasopharyngeal and renal cell carcinomas in a 50-year old male patient with long standing smoking history. The patient was initially presented with a diagnosis of nasopharyngeal carcinoma. During staging process, the abdominal computed tomography detected a right renal solid mass, 6.5 cm in diameter, originating from posterior portion of the right renal cortex. Right radical nephrectomy was performed and pathological examination revealed renal cell carcinoma. Smoking was thought to be a risk factor for both cancers. Systemic evaluation of kidney should not be discarded in patients diagnosed with nasopharyngeal carcinoma living in western countries with a smoking history.

Key words: renal cell carcinoma; nasopharyngeal cancer; nephrectomy; chemotherapy; radiotherapy
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INTRODUCTION

Nasopharyngeal carcinoma (NPC) is a malignancy with an unusual variable incidence rate across the world. NPC has 3 unique etiologic factors, including genetic susceptibility, chemical carcinogens such as tobacco carcinogens especially in western countries, and association with Epstein-Barr virus infection. Concurrent cisplatin and radiotherapy with or without adjuvant chemotherapy is standard of care for patients with locally advanced NPC (1). Renal cell carcinoma (RCC) accounts for 3% of all adult malignancies; with the increasing number of incidentally detected kidney tumors there has been migration to smaller, lower-stage tumors. Several risk

factors have been described for RCC, including tobacco smoking (2). Radical nephrectomy is the gold standard of care for localized RCC.

CASE REPORT

A 50-year old male patient admitted to our hospital with a newly diagnosed NPC. He had a 70 packs/year cigarette smoking history. Magnetic resonance imaging of neck and nasopharynx revealed a nasopharyngeal mass invading the oropharynx with bilateral lymphadenopathy (the largest lymph node had 7 cm in diameter - T3N3M0, stage IV NPC). Reexamination of biopsy confirmed the diagnosis of undifferentiated carcinoma, WHO type III (Figure-

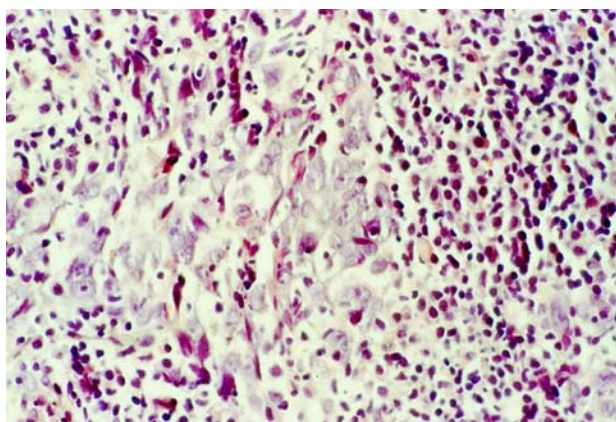


Figure 1 – Undifferentiated nasopharyngeal carcinoma, WHO type III (HE, X10).

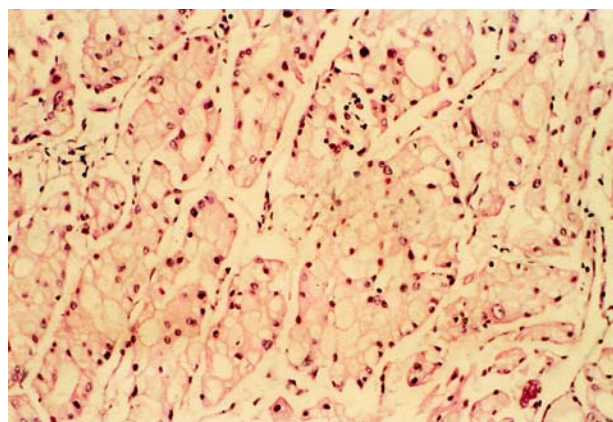


Figure 2 – Renal cell carcinoma with a trabecular and alveolar pattern (HE, X10).

1). During staging process, the abdominal computed tomography detected a right renal solid mass, 6.5 cm in diameter, originating from a posterior portion of the right renal cortex. Right radical nephrectomy was performed and pathological examination revealed multifocal tumoral growth surrounded by capillary network with trabecular and alveolar patterns, which were reported as a RCC of clear cell type, grade 1 (Figure-2). Tumor had a pT1bN0M0 stage with no invasion to renal artery, vein, ureter and perirenal adipose tissue. Concurrent cisplatin-radiotherapy and adjuvant 3 cycles of carboplatin and infusional 5-fluorouracil were planned for the treatment of NPC and no treatment was planned for RCC. Response evaluation showed complete remission after the completion of the treatment. The patient is now in complete remission for 2 years.

COMMENTS

Our patient had 2 distinct synchronous primary tumors, NPC and RCC. In English literature, there is only one similar case published by Nemoto et al. (3) that reported a primary hyperparathyroidism associated with synchronous presentation of triple carcinomas originating from kidney, nasopharynx, and thyroid. Smoking is known to be a risk factor for both NPC and RCC. In particular, meta-analysis of 24 studies including 19 case-control and 5 cohort studies

performed to look at the relation between RCC and cigarette smoking clearly showed that inhaled tobacco smoke is implicated in the etiology of RCC, with a strong dose-dependent increase in risk associated with numbers of cigarettes smoked per day and a substantial reduction in risk for long-term former smokers (2). Having known the fact that smoking is simultaneous risk factor for all cancers susceptible to tobacco carcinogens both in aero-digestive tract, so called field cancerization effect and in distant sites such as pancreas, urinary bladder, and kidney, we may call it - as “distant” cancerization effect, systemic evaluation of kidney should not be discarded specifically, in patient diagnosed with NPC living in western countries with a smoking history.

CONFLICT OF INTEREST

None declared.

REFERENCES

1. Chan AT, Teo PM, Huang DP: Pathogenesis and treatment of nasopharyngeal carcinoma. *Semin Oncol.* 2004; 31: 794-801.
2. Hunt JD, van der Hel OL, McMillan GP, Boffeta P, Brennan P: Renal cell carcinoma in relation to cigarette smoking: meta-analysis of 24 studies. *Int J Cancer.* 2005; 114: 101-8.

3. Nemoto R, Schimizu S, Kuwahara M, Harada T, Kato T: Primary hyperparathyroidism with triple cancers consisting of renal cell carcinoma, nasopharynx carcinoma and thyroid carcinoma. J. Urol. 1977; 117: 369-70.

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Correspondence address:

Dr. Kadri Altundag
8181 Fannin Street, #728
Houston, Texas, 77054, USA
Fax: + 1 713 794-4385
E-mail: altundag@sbcglobal.net