International Journal of Otorhinolaryngology and Head and Neck Surgery
Sandhu KS et al. Int J Otorhinolaryngol Head Neck Surg. 2017 Oct;3(4):1117-1119
http://www.ijorl.com
pISSN 2454-5929 | eISSN 2454-5937

Case Report

DOI: http://dx.doi.org/10.18203/issn.2454-5929.ijohns20174345

An unusual presentation of nasopharyngeal carcinoma

Kulwinder Singh Sandhu*, Priyanka Chaudary, Anjana Kumari, Jagdeepak Singh

Department of ENT, Government Medical College Amritsar, Punjab, India

Received: 04 June 2017
Accepted: 04 July 2017

***Correspondence:**
Dr. Kulwinder Singh Sandhu,
E-mail: ksandhu2000@yahoo.com

ABSTRACT

Nasopharyngeal carcinoma is one of the most difficult tumors to diagnose at early state and intracranial spread is common. We report the case of 45 years old Indian female with nasopharyngeal carcinoma, who presented with nasal obstruction and repeated cough and cold from last two months. X-ray PNS imaging revealed mild septal deviation to right side. Nasal endoscopy revealed lobulated greyish coloured mass involving both choana and mass protruded out on expiration. CT scan revealed soft tissue density in nasopharynx involving bilateral choanae. Excision mass done with presumptive diagnosis of lymphoma. Histopathological examination diagnosed non keratinizing undifferentiated nasopharyngeal carcinoma. Serum EBV-DNA levels were raised. Radiotherapy started immediately after diagnosis of NPC. Non-specific symptoms in this case, when followed up carefully diagnosed as NPC. Diagnosis is important for proper management.

Keywords: Nasopharyngeal carcinoma, Lymphoma, CT scan, Histopathological examination

INTRODUCTION

Nasopoharyngeal carcinoma is a relatively uncommon tumour with an incidence of 0.29 per 100,000 people.[1] Incidence is higher in Chinese, Southern Asians and North African and it is rare in India.[2] World Health Organization, divided NPC on a pathological basis into three histological subtypes i.e. keratinizing squamous cell carcinoma, non-keratinizing carcinoma, which can be further divided into differentiated and undifferentiated subtypes. Undifferentiated non keratinizing NPC is the most common type of NPC and is strongly associated with EBV (Epstein-Barr Virus). The most common site of origin for NPC is lateral wall of nasopharynx, especially the fossa of Rosenmuller, followed by superior posterior wall. Patients mainly complain of nasal symptoms, serous otitis media due to eustachain tube obstruction, headache, Cranial nerve involvement is a feature of advanced stage. Perineural and intracranial spread occur in later stages.[3]

We report here the case of North Indian women with undifferentiated non keratinizing NPC who presented with nasal obstruction only.

CASE REPORT

A 45 years old Indian woman came to our Ram Lal ENT Hospital OPD for treatment of nasal obstruction from last 2-3 months associated with frequent cold and cough. Patient took medications from local practitioner but symptoms were not relieved, so presented here for treatment. There was no history of associated bleeding from nose, sneezing, post nasal discharge, headache, nasal discharge, hyposomia/anosmia, no history of associated ear complains, no proptosis or visual disturbances. On anterior rhinoscopy, bilateral inferior turbinate hypertrophy was seen, septum was mildly deviated to right side; oral cavity and ear examination was normal. No cervical lymphadenopathy was present. On nasal endoscopy with 0^{o} Hopkins endoscope lobulated greyish coloured mass was seen involving both choanae

and mass protruded out on expiration. CT scan imaging revealed nasopharyngeal mass involving the posterior choana bilaterally more on left side, probably nasopharyngeal lymphoma (Figure 1). With this probable diagnosis, nasopharyngeal mass excision was done via endoscopic and transpalatal combined approach under general anaesthesia. 4% xylocaine packs were placed in both nasal cavity between middle turbinate and septum, middle meatuses and inferior meatuses. Inferior turbinate on left side was infilterated with 2% xylocaine with adrenaline. Inferior turbinectomy was done on left side to visualize the mass better. Transoral digital palpation was done to know the extent of tumor better. 2% xylocaine with adrenaline infiltration given at the junction of hard and soft palate. Incision was given at the junction of hard and soft palate.The soft palate was retracted down. The mass was visualized through nasal cavities using 0 degree Hopkins endoscope. Attempt eas made to push it down and it was seen to take origin from posterosuperior wall towards the left of midline. Complete excision of mass was done while visualizing it transpalatally and was delivered also transpalatally. Hemostasis achieved and suturing of palate was done in 2 layers. Ryle's tube inserted. Posterior nasal packing done. Left nasal cavity packed with aseptic nasal packing. Tincture Benzoin dressing was applied over sutured palate using cruciate stay sutures. Recovery from general anaesthesia was uneventful. Excised mass was sent for histopathological examination.

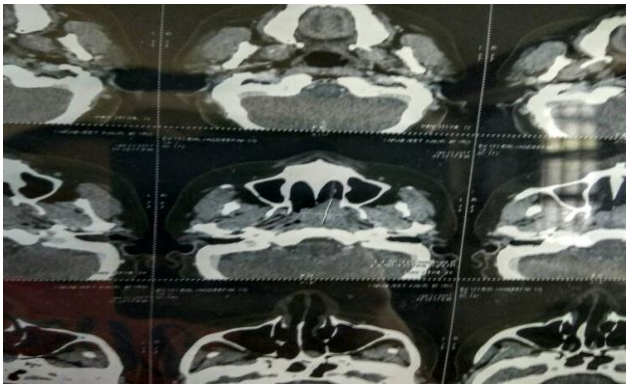

Figure 1: CT scan image of the patient.

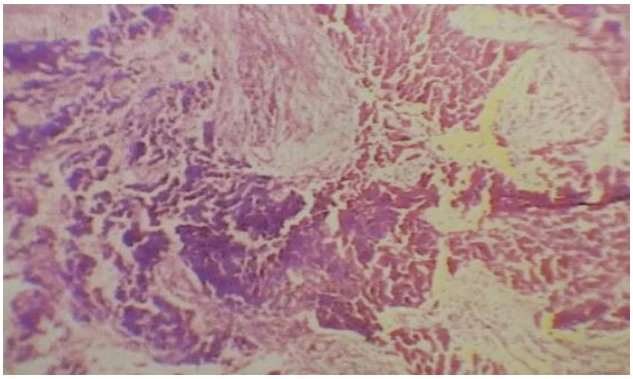

Figure 2: Histopathological picture.

Histopathological findings revealed non keratinizing undifferentiated NPC. Patient is receiving focal radiotherapy at a dose of 46 Gy in 23 fractions.

DISCUSSION

The most common presentation in NPC is cervical lymphadenopathy followed by nasal obstruction, epistaxis and serous otitis media. NPC can also invade the inferior orbital fissure through the ethmoid or sphenoid sinus, as well as the orbit through the pterygopalatine fossa.[4] In the present case, patient was not having any lymph node enlargement, no history of epistaxis, no ear complaints, no visual complaints, no headache. Patient was treated for nasal obstruction with frequent cold and cough symptoms for 2 months. These symptoms suggest that tumor size was small and was limited to nasopharyngeal region only. CT scan imaging showed mass in nasopharynx region involving posterior choanae bilaterally showing mild to moderate enhancement after contrast. The fossa of Rosenmullar should be carefully viewed on initial CT scan imaging because it is the most common site of origin for NPC. MRI imaging is very useful in detecting perineural and intracranial spread.[3]

In the present case, we performed, endoscopic nasal and transpalatal combined approach for mass excision with a tentative diagnosis of nasopharyngeal lymphoma. Histopathological examination of mass revealed NPC, non-keratinizing undifferentiated type. EBV association is well established in undifferentiated type.[2] It seems that EBV infection contributes to the pathogenesis of non-keratinizing nasopharyngeal carcinoma. Elevation of plasma EBV DNA is one of the strong indicator of NPC.[2] In EBV negative squamous cell NPC's other factors like smoking, infection with human papilloma viruses might be involved in pathogenesis of NPC.[2] Serum EBV DNA levels were raised in this patient. C-kit is a transmembrane growth factor receptor for stem cell factor which is not expressed in normal nasopoharyngeal epithelial cells.[5] It was expressed in one-third of NPC's restricted to case of EBV positive undifferentiated on non-keratnizing carcinoma. In this case, C-kit / CD117 was negative. Radiotherapy is the first choice treatment for NPC and cisplatin therapy is also effective.[6] Cisplatin chemotherapy along with radiotherapy is used in advanced stage NPC. In radiotherapy, a dose of 65 to 75Gy should have been given to the primary tumor and 65 to 70Gy to the involved neck nodes because the distant failure rate is relatively high.[7] In this patient, mass excision was done completely, then NPC was diagnosed. No cervical lymphadenopathy, metastasis and intracranial spread being there, radiotherapy treatment was started. Patient is receiving 46 Gy/23 fractions without chemotherapy.

CONCLUSION

NPC is one of the most misdiagnosed tumors because patient initially presents with non-specific symptoms.

Intracranial spread is also common. If NPC is diagnosed, a high dose radiation therapy is essential.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Kimura Y, Suzuki D, Tokunaga T, Takabayashi T, Yamada T, Wakisaka N, et al. Epidemiological analysis of nasopharyngeal carcinoma in the central region of Japan during the period from 1996 to 2005. Auris Nasus Larynx. 2011;38:244–9.
2. Wei WI, Sham JS. Nasopharyngeal carcinoma. Lancet. 2005;365:2041-54.
3. Cui C, Lio L, Ma J, Liang S, Tian L, Tang L. Trigeminal nerve palsy in nasopharyngeal carcinoma: correlation between clinical findings and magnetic resonance imaging. Head Neck. 2009;31:822–8.
4. Roh JL, Sung MW, Kim KH, Choi BY, Oh SH, Rhee CS, et al. Nasopharyngeal carcinoma with skull base invasion: a necessity of staging subdivision. Am J Otolaryngol. 2004;25:26–32.
5. Bar-Sela G, Kuten A, Ben-Eliezer S, Gov-Ari E, Ben-Izhak O. Expression of HER2 and C-KIT in nasopharyngeal carcinoma: implications for a new therapeutic approach. Mod Pathol. 2003;16:1035–40.
6. Mo HY, Sun R, Sun J, Zhang Q, Hung WJ, Li YX, et al. Prognostic value of pretreatment and recovery duration of cranial nerve palsy in nasopharyngeal carcinoma. Radiat Oncol. 2012;7:149.
7. Cheng SH, Tsai SY, Horng CF, Yen KL, Jian JJ, Chan KY, et al. A prognostic scoring system for locoregional control in nasopharyngeal carcinoma following conformal radiotherapy. Int J Radiat Oncol Biol Phys. 2006;66:992–1003.

Cite this article as: Sandhu KS, Chaudary P, Kumari A, Singh J. An unusual presentation of nasopharyngeal carcinoma. Int J Otorhinolaryngol Head Neck Surg 2017;3:1117-9.