

Introduction

Ependymomas arise from ependymal lining of the intracranial ventricles and spinal cord central canal. While tumor dissemination within cerebrospinal-fluid occurs in 10% of cases, extraneural metastasis is rare. Previously reported sites include lymph nodes (LNs), scalp, bone, lungs, pleura, mediastinum, and liver.

Methods

We present a supratentorial ependymoma that metastasized to bilateral cervical LNs. A comprehensive literature search was performed using PubMed, Web of Science, and Scopus from 1950-2018 to find cases involving cervical LNs. Non-English publications were excluded.

Results

A 17-year-old female initially presented to an outside institution with headaches and vomiting. MRI brain revealed a large cystic lesion with nodularity in the left frontal lobe adjacent to the lateral ventricle. After gross total resection, pathology showed anaplastic ependymoma (WHO Grade III) with a high MIB-1 index. She subsequently received adjuvant radiotherapy at 59.4 Gy, and over the next three years, 25 contrast-enhancing intracranial lesions were treated with gamma knife radiosurgery. Five years after initial diagnosis, she presented to our institution with painless bilateral neck masses. MRI neck showed several enlarged, contrast-enhancing right level II and left level Va cervical LNs with corresponding hypermetabolic activity on PET/CT. Core needle biopsy revealed papillary ependymoma (WHO Grade II) with a Ki-67 of 5-10%.

Of the 14 cases found in our literature search, seven cases presented solely with cervical LN involvement, and one case had a concurrent mediastinal lesion. Four cases presented with scalp metastases within the craniotomy scar before cervical LN involvement; the remaining two cases presented

Learning Objectives

After reading this poster, participants should be able to:

1. Consider extracranial metastasis of ependymoma in the differential diagnosis of patients presenting with painless neck masses and a previous history of intracranial ependymoma.
2. Discuss characteristics of cases of intracranial ependymoma metastasizing to cervical lymph nodes.

References

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3. Chao MM, Packer RJ, Myseros JS, Rood BR. Isolated Extracranial Recurrence of Anaplastic Ependymoma. Pediatric Blood & Cancer. 2011;56(2):317-318.

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Figure 1-MRI of the Primary Intracranial Lesion

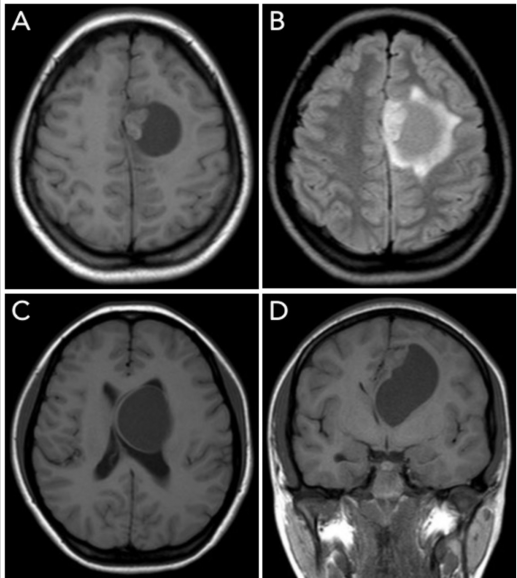


Figure 1: MRI of the Primary Intracranial Lesion (A) T1 axial image showing left frontal cystic lesion with nodular component. (B) T2 FLAIR axial image displaying surrounding vasogenic edema. (C) T1 axial image showing extension of cystic lesion into the left lateral ventricle. (D) T1 coronal image demonstrating compression of the contralateral lateral ventricle.

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Figure 2-MRI & PET/CT of Cervical LNs

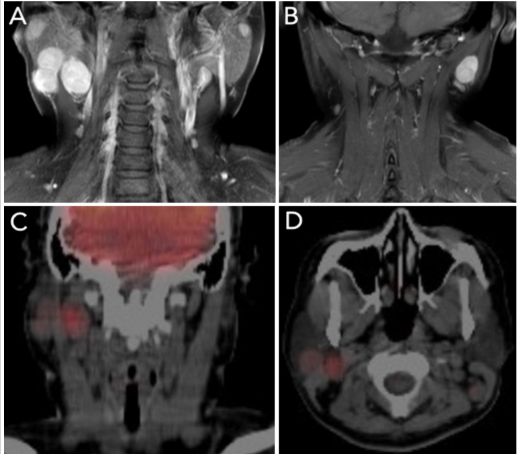


Figure 2: Bilateral Cervical Lymphadenopathy Enlarged, contrast enhancing cervical lymph nodes within the right (A) and left (B) neck are shown on T1 coronal images. The PET/CT scans, (C) & (D), demonstrate hypermetabolic activity within these lymph nodes, which highly suggests malignancy.