RESIDENT & FELLOW SECTION

Teaching NeuroImages: Intracranial extramedullary hematopoiesis

Blood disorders on the mind

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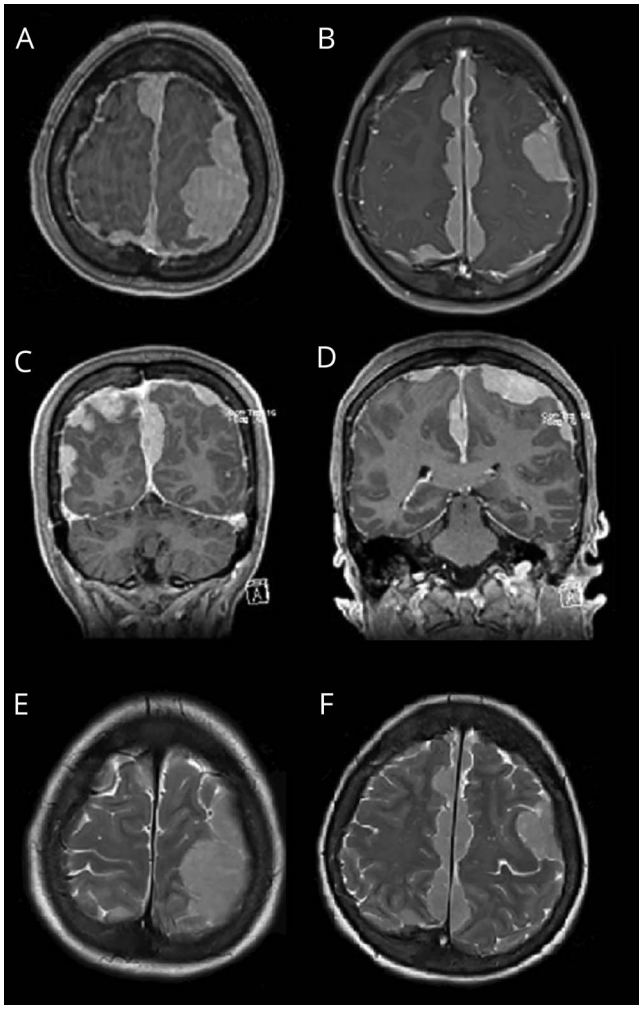
Figure Extramedullary hematopoiesis on MRI



Axial (A, B) and coronal (C, D) T1-weighted MRI with contrast demonstrates multiple lobulated dural-based homogenous enhancing lesions. There is mild mass effect with no significant associated edema on T2-weighted images (E, F).

A 73-year-old woman with JAK-2–positive polycythemia vera, myelodysplastic/myeloproliferative overlap disorder, and biopsy-proven extramedullary hematopoiesis (EMH) involving pleura and paravertebral regions presented with 6 weeks of headaches and blurry vision. Examination showed

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bilateral papilledema, preserved acuity, and mild right pyramidal weakness. MRI brain showed homogenously enhancing dural lesions with no associated edema (figure). She underwent external beam radiation (10 fractions, 200 cGy/fraction) for symptomatic management.

EMH is seen in myeloproliferative neoplasms and hemoglobinopathies and more commonly involves liver, spleen, and lymph nodes.[1] Intracranial EMH is rare and typically presents as dural[1] or choroid plexus–based lesions[2] with features of increased intracranial pressure.

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Disclosure

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Appendix Authors

Name	Location	Contributions
Lily W. Zhou, MD	University of British Columbia, Vancouver, Canada	Involved in first draft, preparation of images, and revisions
Tychicus Chen, MD, FRCPC	University of British Columbia, Vancouver, Canada	Involved in first draft, preparation of images, and revision

References

1. Eskazan AE, Ar MC, Baslar Z. Intracranial extramedullary hematopoiesis in patients with thalassemia: a case report and review of the literature. Transfusion 2012;52:1715–1720.
2. Tabesh H, Shekarchizadeh A, Mahzouni P, Mokhtari M, Abrishamkar S, Abbasi Fard S. An intracranial extramedullary hematopoiesis in a 34-year-old man with beta thalassemia: a case report. J Med Case Rep 2011;5:580.

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