Corpus Callosal Hemorrhage: A Rare Presentation of Extensive Cerebral Venous Thrombosis

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A 28-year-old gentleman presented with occipital headache, vomiting, seizures with no deficits. Imaging showed corpus callosal hemorrhage (CCH) in genu with venous thrombosis [Figures 1 and 2].

CCH is commonly caused by trauma, hypertension, arteriovenous malformation, and neoplasm. Corpus callosum is drained by callosal and Callosocingulate veins which converge into the subependymal venous system and

eventually drain into the anterior septal vein and thence into internal cerebral veins. [1] Very low incidence of CCH in Cerebral Venous Thrombosis (CVT) is probably due to alternate drainage into basal vein and vein of Galen, [2] circumventing internal cerebral veins. In this patient, there is involvement of both superficial and deep venous sinuses.

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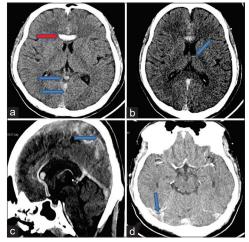


Figure 1: (a) CT head plain-hyperdensity in genu of corpus callosum suggestive of hemorrhage (red arrow) and hyperdensity in bilateral internal cerebral veins and straight sinus (blue arrows) suggesting thrombus. (b) CT head plain shows hyperdensity in thalamostriate vein suggestive of thrombus. (c) Sagittal reformat of contrast image shows filling defect in superior sagittal sinus. Straight sinus shows no hypodense filling defect probably due to inherent hyperdense character of the thrombus. (d) Contrast imaging shows thrombus in right transverse sinus

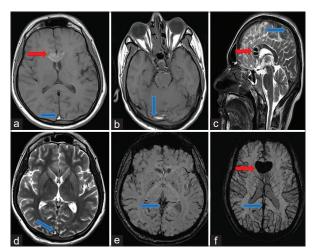


Figure 2: (a) T1 shows hyperintensity at genu (red arrow) suggestive of hemorrhage and at confluence (blue arrow) suggesting thrombosis. (b) T1 reveals hyperintense right transverse sinus suggesting thrombosis. (c) T2 sagittal shows hypointense genu (red arrow) suggesting hemorrhage and hyperintense Superior sagittal sinus (SSS) (blue arrow) suggesting thrombosis. (d) T2 axial shows hyperintense SSS suggesting thrombosis. (e) Susceptibility Weighted Imaging (SWI) shows blooming in internal cerebral veins reflecting thrombosis. (f) SWI shows blooming in genu and thrombosis in straight sinus

Conflicts of interest

There are no conflicts of interest.

REFERENCES

- Erbas G, Oner AY, Akpek S, Tokgoz N. Corpus callosum hematoma secondary to isolated inferior sagittal sinus thrombosis. Acta Radiol 2006;47:1085-8.
- Kulkarni GB, Pendarkar H, Mirza MA, Mustare VK. Corpus callosal hemorrhage due to deep cerebral venous sinus thrombosis: Neurol India 2014;62:563-5.

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