Case 5786

Deep Venous thrombosis
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Section: Neuroradiology
Case Type: Clinical Cases
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Patient: 69 years, female

Clinical History:

This 69-year-old woman presented confusion, headache and a circumstantial amnesia. She had had a deep venous thrombosis of the lower extremities and a pulmonary embolism two years before.

Imaging Findings:

A CT scan realized the day of admission in our hospital showed hypodensity of both thalami (fig.1 arrows) and hyperdensity of the internal cerebral veins (arrowheads). A magnetic resonance (T2 weighted and FLAIR fig.2,3) on the same day showed bilateral thalamic hyperintensity. The MR venography (fig.4 arrowheads) demonstrated thrombosis of the internal cerebral veins, the Rosenthal veins, the vein of Galen and the straight sinus.

Discussion:

The Deep Venous thrombosis is one of the diagnoses to considered in the urgency situation since it can be fatal if not discovered in time. Thrombosis of the internal cerebral veins, vein of Galen, or straight sinus has been observed in approximately 16% of patients with cerebral venous thrombosis (1,2,3) Most such patients present with symptoms of elevated intracranial pressure that rapidly escalate to a coma (1,4,5). Thalamic edema is the imaging hallmark of this condition, and it may extend into de caudate regions and deep white matter (1). At MR imaging, a thrombus usually is visible in the straight sinus, vein of Galen, or internal cerebral veins (1,4). Hemorrhage is noted in 19% of patients and typically is located in the thalami (1,4). Unilateral thalamic edema may occur but is rare (6). Mortality rates among patients with this condition are estimated to be between 22% and 37% as many as 54% of patients may have no neurologic sequelae (1,4). The differential diagnoses that should be taken into consideration are tumours (lymphome, glioma) toxicity (carbon monoxide poisoning) and finally ischemic pathologies such as global hypoxia and arterial infarcts (artery of Percheron). No cause identified on 20-25 % of cases (7)

Differential Diagnosis List: Deep Venous thrombosis

Final Diagnosis: Deep Venous thrombosis

References:


Frey JL, Muro GJ, McDougall CG, Dean BL, Jahnke HK.Cerebral venous thrombosis: combined intrathrombus rtPA
Description: Axial NECT shows hypodensity of both thalami (arrows) and increased density in internal cerebral veins (arrowheads). Origin:
Figure 2

Description: Origin:
Figure 4

Description: Origin: