Spontaneous intracranial hematoma caused by neoplasm

J.Sales-Llopis

Neurosurgery Department, University General Hospital of Alicante, Foundation for the Promotion of Health and Biomedical Research in the Valencian Region (FISABIO), Alicante, Spain

Highly-vascularized, primary malignant brain tumors (BTs), including glioblastoma, oligodendroglioma and metastatic BT, tend to bleed spontaneously and should always be included in the differential diagnosis of non traumatic intracerebral hemorrhage ¹⁾.

Clinical and autopsy studies have identified that brain tumors represent 0.9–11% of spontaneous ICH $_{2) 3) 4) 5) 6) 7) 8) 9) 10) 11)$.

Up to 10% of patients with BTs may experience a diagnostic delay if CT is the only imaging modality that is used $^{12)}$.

Dual-energy CT may be useful in detecting underlying tumors in patients with an ICH of unknown origin, and is a useful tool in differentiating between tumor bleeding and pure ICH in patients with acute ICH of an unclear origin ¹³⁾.

Using MRI with gadolinium early in the post-operative period is likely to lead to an earlier detection of the BT. A previous study showed that the use of MR angiography (MRA) aided the disclosure of the development of an intratumoral aneurysm on a dilated feeding artery, the rupture of which led to intratumoral bleeding ¹⁴.

Treatment

The standard treatment of a BT manifesting as an ICH is the surgical removal of the hematoma and the tumor $^{15) 16)}$.

However, the optimal timing of the therapeutic intervention is poorly defined, particularly when the neurological status of the patient is stable following admission and there is only a minimal or no mass effect on the CT scan 17

1)

2)

Meyer JR, Gorey MT. Differential diagnosis of nontraumatic intracranial hemorrhage. Neuroimaging Clin N Am. 1998;8:263–293.

Cahill DW, Ducker TB. Spontaneous intracerebral hemorrhage. Clin Neurosurg. 1982;29:722-779.

Jellinger K. Pathology of intracerebral hemorrhage. Zentralbl Neurochir. 1977;38:29–42.

Kothbauer P, Jellinger K, Flament H. Primary brain tumour presenting as spontaneous intracerebral haemorrhage. Acta Neurochir (Wien) 1979;49:35-45.

Licata C, Turazzi S. Bleeding cerebral neoplasms with symptomatic hematoma. J Neurosurg Sci. 2003;47:201–210.

Locksley HB, Sahs AL, Sandler R. Report on the cooperative study of intracranial aneurysms and subarachnoid hemorrhage. 3 Subarachnoid hemorrhage unrelated to intracranial aneurysm and A-V

upuale: 2024/06/07 spontaneous_intracranial_hematoma_caused_by_neoplasm https://neurosurgerywiki.com/wiki/doku.php?id=spontaneous_intracranial_hematoma_caused_by_neoplasm update: 02:56

malformation A study of associated diseases and prognosis. J Neurosurg. 1966;24:1034-1056. 7)

McCormick WF, Rosenfield DB. Massive brain hemorrhage: a review of 144 cases and an examination of their causes. Stroke. 1973;4:946-954.

Mutlu N, Berry RG, Alpers BI. Massive cerebral hemorrhage: clinical and pathologic correlations. Arch Neurol. 1963:8:644-661.

Russel DS. Spontaneous intracranial haemorrhage. Proc R Soc Med. 1954;47:689-693. 10) 15)

Schrader B, Barth H, Lang EW, Buhl R, Hugo HH, Biederer J, Mehdorn HM. Spontaneous intracranial haematomas caused by neoplasms. Acta Neurochir (Wien) 2000;142:979-985. 11)

Wakai S, Yamakawa K, Manaka S, Takakura K. Spontaneous intracranial hemorrhage caused by brain tumor: its incidence and clinical significance. Neurosurgery. 1982;10:437-444. 12)

Bell D, Grant R, Collie D, Walker M, Whittle IR. How well do radiologists diagnose intracerebral tumour histology on CT? Findings from a prospective multicentre study. Br | Neurosurg. 2002;16:573-577. 13)

Kim SJ, Lim HK, Lee HY, Choi CG, Lee DH, Suh DC, Kim SM, Kim JK, Krauss B. Dual-energy CT in the evaluation of intracerebral hemorrhage of unknown origin: differentiation between tumor bleeding and pure hemorrhage. AJNR Am J Neuroradiol. 2012;33:865-872. 14)

Hashiguchi A, Morioka M, Ichimura H, Mimata C, Kuratsu J. Glioblastoma with an intratumoral feedingartery aneurysm. Clin Neurol Neurosurg. 2007;109:302-304. 16)

Morgenstern LB, Frankowski RF. Brain tumor masquerading as stroke. | Neurooncol. 1999;44:47–52.

Inamasu J, Nakamura Y, Saito R, Kuroshima Y, Mayanagi K, Ichikizaki K. Rebleeding from a primary brain tumor manifesting as intracerebral hemorrhage (CNN 04/077, revised version) Clin Neurol Neurosurg. 2005;108:105-108.

From:

https://neurosurgerywiki.com/wiki/ - Neurosurgery Wiki

Permanent link: https://neurosurgerywiki.com/wiki/doku.php?id=spontaneous_intracranial_hematoma_caused_by_neoplasr

Last update: 2024/06/07 02:56

