

## Images in clinical medicine



# Simultaneous bleeding of multiple brain metastases from pulmonary carcinoma

Ali Akhaddar, Hatim Belfquih

**Corresponding author:** Ali Akhaddar, Department of Neurosurgery, Avicenne Military Hospital of Marrakech, Marrakech, Morocco. akhaddar@hotmail.fr

**Received:** 24 Jun 2020 - **Accepted:** 24 Jul 2020 - **Published:** 28 Jul 2020

**Keywords:** Brain metastases, hematoma, hemorrhagic stroke, intracerebral hemorrhage, metastatic brain tumor, pulmonary carcinoma

**Copyright:** Ali Akhaddar et al. PAMJ Clinical Medicine (ISSN: 2707-2797). This is an Open Access article distributed under the terms of the Creative Commons Attribution International 4.0 License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

**Cite this article:** Ali Akhaddar et al. Simultaneous bleeding of multiple brain metastases from pulmonary carcinoma. PAMJ Clinical Medicine. 2020;3(140). 10.11604/pamj-cm.2020.3.140.24556

**Available online at:** <https://www.clinical-medicine.panafrican-med-journal.com//content/article/3/140/full>

## Simultaneous bleeding of multiple brain metastases from pulmonary carcinoma

Ali Akhaddar<sup>1,2,&</sup>, Hatim Belfquih<sup>1</sup>

<sup>1</sup>Department of Neurosurgery, Avicenne Military Hospital of Marrakech, Marrakech, Morocco,

<sup>2</sup>Mohammed V University in Rabat, Rabat, Morocco

### &Corresponding author

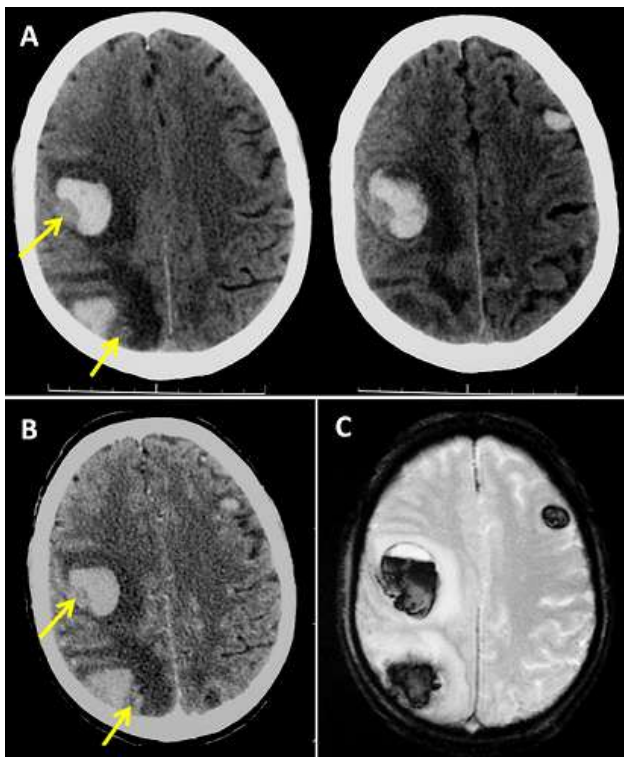
Ali Akhaddar, Department of Neurosurgery, Avicenne Military Hospital of Marrakech, Marrakech, Morocco

## Image in medicine

A 64-year-old male presented with sudden altered level of consciousness, left sided weakness and speech disturbances. He suffered from pulmonary carcinoma and was treated by radio and chemotherapy one year previously. The brain computed tomography scan without contrast injection (A) revealed multiple intracerebral hemorrhages with adjacent brain lesions and perifocal edema especially in the right fronto-parietal area and the left frontal lobe. Two of the fronto-parietal lesions were enhanced following contrast injection (B) (arrows). Brain magnetic resonance imaging confirmed the three hemorrhagic lesions especially on T2 gradient echo

sequence (C). Laboratory data revealed no thrombocytopenia or blood coagulation disorders. The patient underwent urgent removal of both right fronto-parietal hematomas. During surgical evacuation, yellowish masses (arrows) were observed in the cortical surface of both lesions. The patient consciousness and neurologic symptoms somewhat improved after surgery. Unfortunately two weeks later, his clinical condition deteriorated and he died in the intensive care department. Pathological examination displayed the findings of metastatic brain tumors from pulmonary carcinoma. Multiple intracerebral hemorrhages (MIH) are unusual, mostly associated with brain amyloidosis, vasculitis, anticoagulant therapy, hematologic disorders, hemorrhagic

infarction, or illegal drug abuse. Brain metastases can cause bleeding, however simultaneous multiple metastatic hemorrhages are rarely reported in the literature and could be easily confused with other more common etiologies of intracerebral hemorrhages. Metastatic-related MIH shows distinct characteristics in neuroimaging. It should be suspected if the intracerebral hemorrhage has surrounding edema, an enhanced solid mass within or near the bleeding and found in the subcortical area of the brain parenchyma.



**Figure 1:** (A,B,C) simultaneous bleeding of multiple brain metastases from pulmonary carcinoma