

Clinical-Medical Image

## Multiple Intracranial Calcifications: Think About Miliary Brain Metastases!

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**Figure 1:** Brain CT scans before (A) and after contrast enhancement (B) showing diffuse calcified nodular and micronodular lesions supra and infra tentorial (black arrow), with homogeneous contrast enhancement (red arrow), revealing invasive breast carcinoma in a 43 year old woman.

### Clinical Image

Miliary brain metastases were first described by Madow and Alpers in 1951 as carcinomatous encephalitis. It is a rare presentation of brain metastases. The primary tumors reported to be responsible for calcified brain metastases are breast, lung, ovarian and colon cancers. Neurological symptoms may be present or absent due to minimal perilesional edema which generates mass effect. Brain CT scans with contrast shows multiple calcified nodular and micronodular lesions which can be enhanced (Figure 1). Calcifications can take several aspects: microcalcification <4 mm, nodular calcification >4 mm, clusters of calcifications, «popcorn-like» calcification or peripheral rim calcification. The lesions are preferentially located at the grey white matter junction due to the hematogenous dissemination. Edema and mass effect are minor.

**Keywords:** Intracranial calcifications; CT; Miliary

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