Vascular

(1122) - VALUE OF DIGITAL SUBTRACTION ANGIOGRAPHY IN ANEURYSM DETECTION AFTER NEGATIVE COMPUTED TOMOGRAPHY ANGIOGRAPHY FOR SPONTANEOUS SUBARACHNOID HEMORRHAGE.

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Introduction:

Spontaneous subarachnoid hemorrhage (SAH) is frequently associated to rupture of an intracranial vascular malformation (ICVM). Early diagnosis and treatment may prevent rebleeding or other complications, considering the high morbidity and mortality rates associated with aneurysmal hemorrhage.

A computed tomography angiography (CTA) is frequently used as first line diagnostic tool, and digital subtraction angiography (DSA) is a diagnostic tool frequently used to further exclude the presence of intracranial aneurysm.

Objectives:

In the present study, the authors compare the efficacy of DSA versus CTA in the detection of intracranial aneurysm in the context of spontaneous SAH.

Methods:

We present a review of 50 patients with spontaneous SAH with initial (first 24h) negative CTA for ICVM, on which DSA was subsequently performed (between 2010 and 2016). In 3 (6%) patients DSA revealed the presence of an aneurysm. In one of those cases, the patient was submitted to surgery but no aneurysm was visible. In another two cases (4%), a second CTA several days after SAH revealed an PICA aneurysm, not visible in either initial CTA or DSA.

Conclusion:

The current gold standard for the detection of intracerebral aneurysms is IADSA. However, this technique is invasive, time consuming, demanding of technical skill, and relatively expensive.

As a result of recent innovations in CT scanner and workstation technology, 3D computed tomographic angiography has become a useful, noninvasive imaging technique for evaluating cerebrovascular disease. CTA is currently showing a high sensitivity and specifity and may replace IADSA for the detection of aneurysms, even small ones.

Palavras-chave : aneurisma, angiografia, hemorragia subaracnoideia