Digital subtraction angiography

Digital subtraction angiography (DSA) is a type of fluoroscopy technique used in interventional radiology to clearly visualize blood vessels in a bony or dense soft tissue environment. Images are produced using contrast medium by subtracting a 'pre-contrast image' or the mask from later images, once the contrast medium has been introduced into a structure. Hence the term 'digital subtraction angiography.

DSA identifies vascular pathology in 13% of patients with CTA-negative SAH. Intracranial aneurysms or pseudoaneurysms are identified in an additional 4% of patients by repeat DSA following an initially negative DSA. All patients with CT-negative SAH should be considered for DSA. The pattern of SAH may suggest the cause of hemorrhage, and aneurysms should specifically be sought with diffuse or perimesencephalic subarachnoid hemorrhage [1].

3D-DSA

see 3D-DSA.

1)
Heit JJ, Pastena GT, Nogueira RG, Yoo AJ, Leslie-Mazwi TM, Hirsch JA, Rabinov JD. Cerebral Angiography for Evaluation of Patients with CT Angiogram-Negative Subarachnoid Hemorrhage: An 11-Year Experience. AJNR Am J Neuroradiol. 2015 Sep 3. [Epub ahead of print] PubMed PMID: 26338924.