

Cerebral magnetic resonance imaging for subarachnoid hemorrhage diagnosis

Cerebral [magnetic resonance imaging](#) may be proposed if the patient's clinical condition allows it. [FLAIR](#) imaging is more sensitive than CT to demonstrate a subarachnoid hemorrhage and offers greater degrees of sensitivity for the diagnosis of restricted subarachnoid hemorrhage in cortical sulcus. A lumbar puncture should be performed if these investigations are normal while clinical suspicion is high ¹⁾.

The T2* sequence can detect and localize a previous SAH a few months after aneurysmal bleeding ²⁾.

By combining [Susceptibility weighted imaging](#) (SWI) and FLAIR, MRI yields a distinctly higher detection rate for SAH than CT alone, particularly due to their complementary detection characteristics in different anatomical regions. Detection strength of SWI is high in central areas, whereas FLAIR shows a better detection rate in peripheral areas ⁴⁾.

Magnetic resonance angiography for intracranial aneurysm

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Edjlali M, Rodriguez-Régent C, Hodel J, Aboukais R, Trystram D, Pruvo JP, Meder JF, Oppenheim C, Lejeune JP, Leclerc X, Naggara O. Subarachnoid hemorrhage in ten questions. *Diagn Interv Imaging*. 2015 Jul-Aug;96(7-8):657-66. doi: 10.1016/j.diii.2015.06.003. Epub 2015 Jul 2. PubMed PMID: 26141485.

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Mulé S, Soize S, Benaissa A, Portefaix C, Pierot L. Detection of aneurysmal subarachnoid hemorrhage 3 months after initial bleeding: evaluation of T2* and FLAIR MR sequences at 3 T in comparison with initial non-enhanced CT as a gold standard. *J Neurointerv Surg*. 2015 Jul 24. pii: neurintsurg-2015-011819. doi: 10.1136/neurintsurg-2015-011819. [Epub ahead of print] PubMed PMID: 26208516.

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Falter B, Wiesmann M, Freiherr J, Nikoubashman O, Mull M. Frequency and appearance of hemosiderin depositions after aneurysmal subarachnoid hemorrhage treated by endovascular therapy. *Neuroradiology*. 2015 Jul 19. [Epub ahead of print] PubMed PMID: 26188767.

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Verma RK, Kottke R, Anderegg L, Weisstanner C, Zubler C, Gralla J, Kiefer C, Slotboom J, Wiest R, Schroth G, Ozdoba C, El-Koussy M. Detecting subarachnoid hemorrhage: comparison of combined FLAIR/SWI versus CT. *Eur J Radiol*. 2013 Sep;82(9):1539-45. doi: 10.1016/j.ejrad.2013.03.021. Epub 2013 Apr 28. PubMed PMID: 23632159.

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Last update: 2024/08/09 06:51

