Imaging of intracerebral hemorrhage

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Intracerebral hemorrhage (ICH) is described as spontaneous extravasation of blood into the brain parenchyma, presenting in 10% to 15% of all stroke cases in the Western population. It is also associated with a higher mortality rate compared to ischemic stroke. ICH is classified according to its primary (80% to 85%) or secondary (15% to 20%) causes. More than 50% of primary ICH events are directly correlated with hypertension as a risk factor, whereas 30% are known to be associated with cerebral amyloid angiopathy (CAA). The causes of secondary ICH include hemorrhage conversion of ischemic stroke, amyloid angiopathy, stimulant drugs, vascular malformations (aneurysms, arterovenous malformations, venous angioma, cavernoma, dural arteriovenous fistula), coagulopathy (hereditary, acquired, induced by anticoagulants or antiplatelets), neoplasms, trauma, vasculitis, Moyamoya disease, or sinus venous thrombosis. A new systematic stratification is proposed called SMASH-U classification based on the underlying diseases of ICH: 1. Structural lesions (cavernomas and arterovenous malformations), 2. Medication (anticoagulation) 3. Amyloid angiopathy 4. Systemic diseases (liver cirrhosis, thrombocytopenia, and various rare conditions) 5. Hypertension and undetermined causes. The objectives of this talk are: 1. A small introduction with how to differentiate between intra and extra axial lesions 2. An overview of arterial and venous supply of the brain 3. Discuss the radiological features of the causes of hemorrhagic stroke (Intracerebral hemorrhage) as mentioned above 4. Highlight the imaging characteristics of aging blood on MRI (Hyperacute, acute, early and late subacute and chronic).

Biography

Rola Aatif Mahmood graduated from Royal College of Surgeons in Ireland during 2006-2011. She completed an internship in Salmaniya Medical Complex, Bahrain. She completed Bahrain Licensure Exam and Saudi Licensure Exam in June 2012. She previously worked as an Ultrasound Specialist and Patient Support Consultant in Abbott Laboratories from September 2012 to August 2013. She is currently working in Radiology department at Salmaniya Medical Complex.

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