Diffuse cerebral petechial hemorrhage in an 8-year-old girl with MRSA pneumonia and sepsis

Figure Susceptibility-weighted MRI of cerebral hemispheres

Innumerable discrete petechial hemorrhages throughout the cerebral hemispheres demonstrated on axial susceptibility-weighted MRI. The majority of the lesions are located at the gray-white interface.

An 8-year-old girl in septic shock due to necrotizing methicillin-resistant *Staphylococcus aureus* (MRSA) pneumonia developed signs of end-organ damage, new right hemiplegia, and left gaze preference. Susceptibility-weighted MRI demonstrated extensive multifocal petechial hemorrhage preferentially at the gray-white matter interface due to septic microemboli (figure). Mechanisms of hemorrhage include small-vessel occlusion leading to mycotic aneurysm formation with rupture or pyogenic arteritis without aneurysm formation.¹ Intracranial hemorrhage associated with metastatic staphylococcal infections is rarely described² and is especially noteworthy with diffuse cerebral petechial hemorrhage in the setting of metastatic MRSA.

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