Cerebral abscess in a septic toddler with an undiagnosed superior sinus venous defect

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Cerebral abscess is most commonly seen in the first two decades of life. Approximately 90% of brain abscess result from extra-cardiac infections (sinusitis, mastoiditis and otitis media). Cardiac causes of cerebral abscess are generally related to left sided bacterial endocarditis and congenital cyanotic cardiac lesions. We report an unusual case of a less than two years old patient who presented with urinary tract infection, who developed brain abscess, and subsequently was diagnosed with an acyanotic cardiac defect. A 17 months old uncircumcised male with an unremarkable past medical history presented to a community hospital with fever, vomiting, diarrhea and lethargy. A full work up was performed and the patient was diagnosed with Citrobacter Koseri urinary tract infection (UTI). The patient was started on the appropriate antibiotics. However, his fever persisted and he developed a dysconjugate gaze. An immediate MRI demonstrated multiple cerebral abscesses. The patient was transferred to Nicklaus Children's Hospital and underwent an emergent endoscopic exploration of the left cerebral ventricular system with washout and placement of an external drain. A transthoracic echocardiogram was performed and revealed a moderate superior sinus venous defect (SVD) with partial anomalous pulmonary venous return (PAPVR) of the right upper and middle veins to the superior vena cava, there was right atrial and ventricular dilatation. The patient received 6 weeks of antibiotics and showed excellent recovery of his motor and cognitive function. After completing medical therapy, the patient underwent a successful two patch repair of the SVD and PAPVR and was discharged on third post-operative day. This case illustrates an uncommon association between cerebral abscess and acyanotic heart disease. Cardiac imaging either transthoracic or transesophageal echocardiogram are invaluable in the assessment of brain abscess with suspected hematogenous spread.

Biography
Keyur K Mehta has completed his MBBS from Grant Medical College, Mumbai and residency from SUNY Downstate Medical Center, Brooklyn NY where he was also chosen as a Chief Resident and received awards for research and excellence in pediatric education. He is currently a second year cardiology fellow at Nicklaus Children’s Hospital in Miami. He has presented his research work at various national and international conferences.

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