

Evidence Discussion (PVD 6.10)

Medium Vessel Vasculitis

Medium vessel vasculitis includes multiple inflammatory processes that affect the major arteries the cerebrovascular, thoracic and abdominal regions. Cardiac involvement is also common. Pediatric populations are most often affected.^{1,2} Aneurysmal degeneration risk is high and does require regular surveillance. The two most common types include:

- Polyarteritis nodosa
- Kawasaki disease

Initial diagnosis should be made through history, physical exam and laboratory values including inflammatory markers.^{3,4} Aneurysmal degeneration of vessels may be seen in multiple anatomic regions. For individuals with suspected disease, ultrasound, CT and MR imaging of the neck/chest/abdomen/pelvis is indicated.^{5,6}

Annual surveillance in the absence of symptoms is still recommended due to the high risk of progressive vascular damage.⁷

References:

1. Sivaraman V, Fels EC, and Ardoin SP. Vasculitis syndromes. Nelson Textbook of Pediatrics, Chapter 192. eds Kliegman RM, St. Geme JW III, Blum NJ, et al. 21st ed. Philadelphia, PA: Elsevier; 2020:1317-1327.
2. Sharma AM, Singh S, Lewis JE. Diagnostic Approach in Patients With Suspected Vasculitis. Techniques in Vascular and Interventional Radiology. 2014;17(4):226-233. doi:10.1053/j.tvir.2014.11.002.
3. Ozen S, Pistorio A, Iusan SM, et al. EULAR/PRINTO/PRES criteria for Henoch-Schonlein purpura, childhood polyarteritis nodosa, childhood Wegener granulomatosis and childhood Takayasu arteritis: Ankara 2008. Part II: Final classification criteria. Annals of the Rheumatic Diseases. 2010;69(5):798-806. doi:10.1136/ard.2009.116657.
4. Mccrindle BW, Rowley AH, Newburger JW, et al. Diagnosis, Treatment, and Long-Term Management of Kawasaki Disease: A Scientific Statement for Health Professionals from the American Heart Association. Circulation. 2017; 135(17). doi:10.1161/cir.0000000000000484.
5. Granata C, Damasio MB, Zaottini F, et al. Imaging of Childhood Vasculitis. Radiologic Clinics of North America. 2017;55(5):1131-1143. doi:10.1016/j.rcl.2017.05.001.
6. Ammirati E, Moroni F, Pedrotti P, et al. Non-Invasive Imaging of Vascular Inflammation. Frontiers in Immunology. 2014;5:1-15. doi:10.3389/fimmu.2014.0039.
7. Soliman M, Laxer R, Manson D, et. al. Imaging of systemic vasculitis in childhood. Pediatric Radiology. 2015;45(8):1110-1125. doi:10.1007/s00247-015-3339-3.