Kawasaki disease in Western Saudi Arabia

To the Editor

I have 2 comments on the interesting study of Al-Harbi[1] on Kawasaki disease in Western Saudi Arabia.

First, Al-Harbi[1] stated in his study that only 12.5% (3/24) of the children with Kawasaki disease (KD) proved to have coronary artery abnormalities on echocardiography. Although this frequency is much less than the 44% reported,[2] it is critical to identify predictive factors that predispose children with KD to have coronary artery lesions, and plan for administration of aggressive therapy to halt their progression. Al-Harbi[1] only focused in his study on the delayed diagnosis of KD as a sole risk factor for development of coronary artery lesions in children with KD. However, many studies have disclosed various demographic, clinical, and laboratory factors contributing to that risk, namely; age <1 year, male gender, incomplete and/or atypical clinical manifestations, intravenous immunoglobulin non-responsiveness, total duration of fever longer than 8 days, low serum albumin, serum sodium concentration of <135 mEq/L at the patient's first visit to hospital, and thrombocytopenia during the acute stage of disease.[3-7]

Second, it is the usual scenario to lately diagnose KD in children, particularly in developing countries. Interestingly, the diagnosis of KD in Al-Harbi's study[1] was made 8.1 ± 3.3 days after the start of fever with a range from 4-15 days. Truly, the delay in the diagnosis of KD, particularly after the day 10 of illness could be easily attributed to the absence of pathognomonic physical signs, and specific laboratory tests in KD on one hand, and lack of awareness of KD among health workers in peripheral hospitals and primary health care centers on the other hand. However, the following 2 plausible explanations must not be overlooked: 1. Late diagnosis was found not to be linked to the type of medical provider, number of antibiotics received, or number of physician visits. Actually, patients with delayed diagnosis often exhibits the typical features of KD, but the onset of their symptoms is dispersed over time as opposed to the close clustering of symptoms in the early diagnosed patients.[8] 2. Certain independent predictors of late diagnosis were noticed to include age of <6 months, incomplete KD, and greater distance from the health center.[9]

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Reply from he Author

No reply was received from the Author.

References

1. Al-Harbi KM. Kawasaki disease in Western Saudi Arabia. *Saudi Med J* 2010; 31: 1217-1220.
2. Baer AZ, Rubin LG, Shapiro CA, Sood SK, Rajan S, Shapir Y, et al. Prevalence of coronary artery lesions on the initial echocardiogram in Kawasaki syndrome. *Arch Pediatr Adolesc Med* 2006; 160: 686-690.
3. Nofech-Mozes Y, Garty BZ. Thrombocytopenia in Kawasaki disease: a risk factor for the development of coronary artery aneurysms. *Pediatr Hematol Oncol* 2003; 20: 597-601.
4. Honkanen VE, McCrindle BW, Laxer RM, Feldman BM, Schneider R, Silverman ED. Clinical relevance of the risk factors for coronary artery inflammation in Kawasaki disease. *Pediatr Cardiol* 2003; 24: 122-126.
5. Nakamura Y, Yashiro M, Uehara R, Watanabe M, Tajimi M, Oki I, et al. Use of laboratory data to identify risk factors of giant coronary aneurysms due to Kawasaki. *Pediatr Int* 2004; 46: 33-38.
6. Kim T, Choi W, Woo CW, Choi B, Lee J, Lee K, et al. Predictive risk factors for coronary artery abnormalities in Kawasaki disease. *Eur J Pediatr* 2007; 166: 421-425.
7. Song D, Yeo Y, Ha K, Jang G, Lee J, Lee K, et al. Risk factors for Kawasaki disease-associated coronary abnormalities differ depending on age. *Eur J Pediatr* 2009; 168: 1315-1321.
8. Anderson MS, Todd JK, Glodé MP. Delayed diagnosis of Kawasaki syndrome: an analysis of the problem. *Pediatrics* 2005; 115: 428-433.
9. Minich LL, Sleeper LA, Atz AM, McCrindle BW, Lu M, Colan SD, et al. Delayed diagnosis of Kawasaki disease: what are the risk factors? *Pediatrics* 2007; 120: 1434-1440.