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SCIENTIFIC LETTER

Kawasaki Disease Associated with Neuroblastoma: Evidence for a New Paraneoplastic Syndrome?

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To the Editor: Herein, we report an extremely rare case of a localized neuroblastoma (NB) with Kawasaki (KD) in a child. We suggest that KD might represent a new paraneoplastic syndrome associated with neural crest tumors.

A 2-y-old boy was admitted to our institution with a fever for 10 d and puffy red eyes. He represented febrile, irritable and acutely ill. Other significant findings included red fissured lips, strawberry tongue, mild swelling and periungual desquamation over the distal parts of his extremities. Echocardiography demonstrated a 3.9 mm dilatation in his left coronary artery and a 2.4 mm dilatation in his right coronary artery. The diagnosis of KD was identified. He received 2 g/kg intravenous immunoglobulin (IVIG) as well as aspirin for two consecutive days. Symptom of fever improved quickly after treatment, however, it recurred 5 d later. The ultrasound study revealed an abdominal mass in her left adrenal gland, measuring 6 cm×5 cm. Diagnosis of poorly undifferentiated NB was made by fine needle biopsy. Chemotherapy with NB 97 protocol was initiated. Within 1 mo, all symptoms and signs of KD had completely resolved, including bilateral coronary artery dilatation.

Although there are a few reports of cases with NB identified following a diagnosis of KD, the relationship between them remains unknown. The tumor diagnosis is often achieved incidentally or by autopsy. Recently, Lim et al. have reported two patients of KD with hidden NB [1]. Until now, six NB cases following the diagnosis of KD have been reported. NB is known to produce substances that cause paraneoplastic syndrome [2]. The demonstration of tumor-specific anti-Hu antineuronal antibody in the serum and cerebrospinal fluid of a child with opsomyclonus, tonic pupils, a progressive neurologic disorder with deafness, areflexia, and seizures and subsequent response to intravenous immunoglobulin, strongly support the autoimmune hypothesis [3]. Immune disorder is known as the major etiology for paraneoplastic syndrome and KD [4]. It is questionable whether the metabolics and immune disorder caused by NB play any role in the pathogenesis of KD. Even though paraneoplastic neurologic disorders are the most common ones involved in NB, the potential effects on other systems should be paid attention to.

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