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Short Communication

Kawasaki Disease in North-Eastern Part of India

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ABSTRACT

Kawasaki Disease (KD) is a medium vessel vasculitis and especially involves coronary arteries. The disorder occurs most commonly in children less than 5 years. However, it can affect any age up to the adulthood. If KD is not treated on time, it will lead to coronary artery aneurysm in 25% of patients and this is one of the risk factors for premature cardiovascular death. Intravenous immunoglobulin is the drug of choice in the treatment of KD, and it should be administered within 10 days of onset of symptoms. Timely treatment reduces the chance of the development of CAA to 3%-5%. Therefore, the major concern should be the early diagnosis and timely management of KD. Recently, we have reported a case series from North-Eastern part of India describing our experience in patients with KD in this part of the country.

Keywords: Kawasaki disease; Epidemiological; Rheumatology; Immunodeficiency; Medical curriculum

INTRODUCTION

About a half century back Kawasaki Disease (KD) was first reported by a Japanese pediatrician, Dr. Tomisaku Kawasaki. Thereafter, it has been reported by several countries throughout the world. In India, KD was first reported by Taneja, et al. [1]. In 1997 two case series were published from India [2,3]. During the last two decades, it was reported from almost all major cities in India. The North-Eastern states of India comprised of 7 states namely, Assam, Arunachal Pradesh, Manipur, Mizoram, Nagaland, Tripura, and Meghalaya. Out of these states pediatricians of Assam, Manipur, Meghalaya, and Arunachal Pradesh had anecdotally diagnosed and treated patients with KD. Recently we have reported the first case series on KD from this part of India [4].

IS THE INCIDENCE OF KD IS REALLY INCREASING OR THERE IS INCREASED ASCERTAINMENT OF THE DISEASE?

So far, there is no nationwide epidemiological study on KD conducted in India. In a retrospective epidemiological study from Chandigarh reported an incidence of 4.35/100,000 children below 5 years [5]. In North-Eastern states of India, till last year there were no published reports on KD. After establishment of Pediatric Rheumatology and Immunodeficiency Clinic (PRIC) in Gauhati Medical College, Guwahati, Assam in 2017, the pediatricians in this part of the country have acquired an opportunity to suspect KD in acutely febrile children, and hence referral of such cases to this clinic for second opinion. Also, incorporation of KD in undergraduate medical curriculum, involvement of postgraduate trainees at our center, and awareness raising among the physicians through continued medical education services, conference papers in this part of the country probably had played some role in suspecting patients with KD. All of these factors probably resulted in more referral of cases with suspected KD to our center, and we could record the data from 73 patients with this so called rare disease in a short period of time (2.5 years).

WHY THE DIAGNOSIS OF KD IS IMPORTANT IN HEALTH PRACTICE?

KD is the most common vasculitic disorder in children. It has special predilection to involve coronary arteries. If the disease is not diagnosed and treated on time, up to 25% of children can develop Coronary Artery Aneurysm (CAA) [6]. If the disease is treated on time (within 10 days of onset) with intravenous immunoglobulin (IVIg), this figure can be brought down to 3%-5%. KD is also considered as one of the etiologies of premature cardiovascular death. In a study from San Diego reported that, 5% of adults of <40 years of age with acute coronary events had CAA due to Kawasaki disease during childhood [7]. Myocardial infarction most commonly occurs within first year of onset of KD.

WHAT ARE THE COMMON PITFALLS IN DIAGNOSIS OF KD?

The incidence of KD is highest in children of <5 years. It shares

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several clinical features with other diseases like viral exanthema, scarlet fever, pharyngitis etc, which are also common during this age group. Therefore, physicians can easily miss the diagnosis of KD. Moreover, the sterile pyuria which is also an important finding of KD can be mislabelled as urinary tract infection. Missing a diagnosis is more common in children with incomplete KD. Therefore, a high degree of suspicion is necessary in children with fever persisting for 5 days for early diagnosis of KD.

IS THE CLINICAL PHENOTYPE OF KD IN NORTH-EAST INDIAN CHILDREN IS DIFFERENT FROM REST OF THE COUNTRY?

The clinical presentations, demographic features, response to treatment of North-East Indian children are similar to already report series from other Indian centers. However, we have observed another cardiac complication in our cohort, that is, cardiac tamponade which is scarcely reported in literature.

CONCLUSION

Though KD is said to be a rare disease, this is not actually true. Physicians should be aware of this disorder and able to suspect at its earliest sign. KD needs to be considered as one of the common diseases with public health importance, and should be included in governmental programs to prevent early cardiovascular death.

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