

Diagnosis and management of vaccine induced anaphylaxis



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Similar to all other medical products, vaccines too can lead to hypersensitivity reactions. Rarely, these may result in acute, life threatening, systemic reaction - anaphylaxis. It was found that anaphylaxis to vaccines was the third leading cause of anaphylaxis among children, in a study on patients attending an allergy clinic in Sri Lanka.

Majority of the reported immediate hypersensitivity reactions in Sri Lanka have been to MMR vaccine. For instance, in 2015, 119 cases of allergic reactions after MMR vaccine were reported for the second quarter of the year. Other implicated vaccines are MR, measles, live JE vaccine, rabies PCEC vaccine, pentavalent, DT and aTd. Most of the children who developed vaccine induced anaphylaxis in Sri Lanka had cow's milk allergy or allergy to red meat such as pork or beef. In another study, it was revealed that 76.5% of the children investigated after immediate hypersensitivity reactions following vaccination were sensitized to bovine serum albumin (BSA), which is a minor protein component of cow's milk. This is in contrast to what has been observed in children with cow's milk allergy in other countries, who rarely have BSA specific IgE. Although, sensitization to gelatin was a cause of hypersensitivity reactions to vaccines in other countries such as USA and Japan, IgE to gelatin appears to be rare among those who develop vaccine induced anaphylaxis in our country.

Following the deaths of two girls due to anaphylaxis following rubella vaccine in 2008, there was a temporary suspension of rubella immunization programme that lead to an increase in the incidence of congenital rubella syndrome. Therefore, prompt diagnosis and appropriate

management of anaphylaxis is a cornerstone in maintaining vaccine compliance.

In addition, it is imperative that immunization is carried out in a centre where resuscitation facilities are available specially in the presence of preceding hypersensitivity to cow's milk and/ or to pork/ beef. It is also important that all medical officers and other healthcare personnel have a sound knowledge on recognition and prompt management of anaphylaxis in order to prevent fatalities