Life Threatening Pancreatitis Following Varicella Vaccination: Cause, Association or Co-incidence?

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Sir,

Varicella infection is a highly infectious and common childhood disease. Prevention by vaccination with the Oka strain, a live attenuated varicella vaccine has been demonstrated to be effective and safe in children 1. We report the development of acute pancreatitis in an immuncompetent boy following varicella vaccination.

A 28-month-old Malay boy presented with gross abdominal distention and impending cardio-respiratory arrest 12 hours after receiving the varicella vaccine, 0.5ml given subcutaneously. He had been relatively well and afebrile with no history of primary varicella infection or trauma. He was immediately intubated and resuscitated. 1000 ml of fresh blood mixed with yellowish fluid and mild curds was aspirated from his stomach. There was no bile. There was also no rash and the injection site was not inflamed. A diagnosis of acute pancreatitis was made based on a serum amylase of 215iu/L (normal 25-115iu/L) and urine amylase of 2521iu/L (normal 30-200iu/L), that remained elevated for 5 days. Abdominal x-ray revealed a sentinel loop with a dilated stomach and duodenum shadow. A barium study showed gastro-paresis. A slightly bulky pancreas with no pseudocyst formation or calcification was seen on CT scan abdomen. Serum IgM for measles, mumps and rubella were negative. He had been on follow-up for chronic lung disease following 6 weeks of ventilation at birth for eventration of the right diaphragm and tracheomalacia. He was receiving inhaled Budesonide 400 mcg bd and Salmeterol 50 mcg bd for bronchial hyperesponsiveness. His T and B cell enumeration studies were normal. Human immunodeficiency virus screen has been negative. He last received a short course of prednisolone for a wheezing episode 6 months ago. He received all his scheduled childhood immunization by 24 months with no untoward reactions. He was discharged well after 35 days during which, he never developed the characteristic varicella rash.

Varicella vaccine is safe in children with few associated mild adverse reactions. Discomfort over the injection site is seen in 20% of recipients, and a rash may occur in another 3 - 5% 1. Serious adverse events such as encephalitis, pneumonia, seizures, neuropathy and even death, have been reported rarely in temporal association with varicella vaccine suggesting a possible causal relationship. Although not described previously, the proximal temporal relationship of the onset of acute pancreatitis following varicella vaccine described here suggests its association with the vaccine. Acute pancreatitis itself as a rare complication of varicella infection has been reported previously 2. Acute pancreatitis has been reported in a healthy adult who had received the measles, mumps and rubella vaccine 3.

Varicella vaccine has been shown to be effective and safe. Nonetheless, our experience here warrants vigilance with the varicella vaccine and that acute pancreatitis is considered a potential adverse reaction with it.

References

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