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## Acute Myocarditis in a Young Infant: When to Investigate Clinical Suspicion

Muhamad Azamin Anuar, Asrar Abu Bakar, Sharifah Aishah Alsagoff, Amir Hamzah Abdul Rahman, Mossad Abdelhak Shaban Mohamed, Taufig Hidayat Hasan

Kulliyyah of Medicine, International Islamic University Malaysia, Kuantan, Pahang.

Introduction: In Malaysia, a course of vaccination DTaP/IPV/Hib was introduced in 2008, replacing the 2006 DwPT-HBV/Hib+OPV vaccines. Severe systemic adverse reactions after diphtheria, tetanus and pertussis vaccination are uncommon. Cardiac complications are rarely reported and is most probably implicated to the pertussis component. We describe a rare case of acute myocarditis that developed 60 hours after DTaP/IPV/Hib vaccination. Case report: A 2-month old infant presented to emergency department after her first diphtheria, tetanus and pertussis vaccination due to severe respiratory distress and cyanosis. She had her BCG and two Hepatitis B vaccinations previously with no major side effects. Parents reported that she was feverish for 48 hours post vaccination with no other associated symptoms. Prior to presentation, she went floppy and was immediately brought to hospital. On arrival, she was tachypnoeic and cyanotic with hypoperfusion and hypotensive. She was also noted to have hepatomegaly. She was grunting and her level of consciousness deteriorated. She was immediately intubated and her first blood gas showed profound metabolic acidosis with pH 6.6, base excess -24mmol/L, lactate 14mmol/L and bicarbonate 4mmol/L. She required fluid boluses and inotrope infusion was commenced. She received antibiotics and sodium bicarbonate to correct her acidosis. Her echocardiography showed global hypokinesia, CK 3018 and positive Troponin. She was treated with immunoglobulin for myocarditis and on high frequency oscillation for 4 days before being extubated on day 11 of admission. All her viral serology and cultures came back negative. Discussion: Cardiac complications after diphtheria, tetanus and pertussis and other vaccinations are exceptionally uncommon. This patient developed sudden onset cardiogenic deterioration after an expected fever-like illness post vaccination. Given her viral screening and cultures were negative, this make acute myocarditis post vaccination a remote possibility. We concur that evaluation of cardiac state should be considered in recently vaccinated infants who manifest with cyanosis, hypoperfusion and drowsiness.