INTRODUCTION

Haemophagocytic lymphohistiocytosis (HLH) is a life-threatening disease resulting from dysregulated activation and proliferation of lymphocytes. It can be hereditary, or secondary to infection, malignancy, or rheumatologic disease. Its occurrence after vaccination against measles remains a rare but formidable complication. Favoring factors, clinical and biological characteristics, as well as the possibility of a genetic predisposition must be specified.

Observation

We report the case of a nine-month-old non-consanguineous infant with no particular medical history, who received his first dose of measles-rubella vaccine, and presented 7 days after an alteration of the general condition, a generalized papular rash, and an extensive petechial and ecchymotic purpura. A fever of 39.5°C, complicated by a state of convulsive illness, acute diarrhea, and an acute edema of the lungs were noted. The patient admitted to pediatric intensive care unit was intubated-ventilated-sedated and placed on broad spectrum antibiotic therapy. The brain scan followed by lumbar puncture was normal. CRP was slightly increased to 32 mg / l. The remainder of the biological assessment showed bicytopenia (microcytic hypochromic anemia, thrombocytopenia), and predominantly neutrophilic leukocytosis. Acute renal failure, significant hepatic cytolysis (transaminases greater than 10 times normal), and persistent hyponatremia at 129 mmol / l were noted. Ferritinemia and LDH were very high. The serologies of hepatitis A, B, C, HIV, and CMV were negative. A realized myelogram showed a histological appearance of a macrophage activation syndrome. The evolution was marked by hemodynamic instability refractory to adapted resuscitation measures. The patient had a multi-visceral failure and died 48 hours after admission. HLH after vaccination against measles remains a rare but formidable complication. Favoring factors, clinical and biological characteristics, as well as the possibility of a genetic predisposition must be specified.

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(of more than 2 cell lines), hypertriglyceridemia or hypofibrinogemia, hemophagocytosis (in the bone marrow, spleen or lymphatic ganglia) with weak or absent cytotoxicity of “natural killer” cells, hyperferritinaemia; and high levels of soluble CD25 (1). There are few cases of HLH secondary to vaccination reported in the literature (3, 4). The only pediatric case associated with vaccination against measles is published in 2002 in Japan (2). This is the case of a 19-month-old female toddler who developed a persistent fever one week after vaccination, followed by the onset of pancytopenia, hepatic dysfunction, hepatosplenomegaly with marked hemophagocytosis. She was initially put on intravenous immunoglobulin (1 g / kg / day for 2 days) then relayed with oral prednisolone (2 and then 1 mg / kg / day for 3 weeks). But in view of the persistence of recurrent intermittent fever and worsening of pancytopenia, the patient was put on cytotoxic chemotherapy: etoposide, in combination with high-dose dexamethasone according to the HLH94 protocol (5). She responded gradually to treatment and was afebrile at the 5th week of treatment. Treatment was discontinued after 8 weeks, and the patient did not relapse afterwards.

**Conclusion**

HLH after vaccination against measles remains a rare but formidable complication. Favoring factors, clinical-biological characteristics, as well as the possibility of a genetic predisposition must be specified. Treatment is based on immunosuppressants with high dose of corticosteroids and / or intravenous immunoglobulins.

**REFERENCES**


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