

with defects of the branchial arches such as in FAVS. Hence, all babies of FAVS should have an estimation of serum calcium and phosphorus as a screening test, so that physical and mental retardation could be prevented.

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# Rituximab for Treatment of Autoimmune Hemolytic Anemia

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We report the successful use of rituximab as single treatment modality in a five-month-old boy with fulminant warm autoantibody autoimmune hemolytic anemia, resistant to standard treatment. On admission, laboratory tests showed a profound anemia with a hemoglobin of 2.6 g/dL. Indirect and direct antiglobulin tests were strongly positive, and nonspecific IgG autoantibodies were detected. Two days of intravenous corticosteroids (methylprednisolone 4mg/kg) and immunoglobulins (1g/kg) did not halt the hemolysis and the infant was severely transfusion-dependent. Rituximab 375mg/sq m weekly was given for 4 weeks, the hepatosplenomegaly gradually regressed, the lymphocytes normalized and he is free from hemolysis two years after treatment.

**Key words:** Autoimmune hemolytic anemia, Rituximab.

**A**utoimmune hemolytic anemia (AIHA) constitutes a group of diseases classified on the basis of the temperatures at which the autoantibodies exhibit their maximal reactivity to erythrocytes; warm AIHA has maximal reactivity at 37°C, and cold AIHA at 28-31°C [1]. Glucocorticoids and/or intravenous immunoglobulins are the mainstay of treatment in the majority of patients with warm AIHA [2,3]; however, when these treatments fail patients often require cytotoxic drugs or splenectomy.

We describe a 5-month old boy with a fulminant type warm AIHA resistant to the standard treatment who was successfully treated with rituximab.

## CASE REPORT

A 5-month-old boy with an uneventful prior medical

history was admitted to a regional hospital for investigation following two days of sudden onset pallor, malaise and anorexia. At presentation, his laboratory tests revealed a profound anemia with a hemoglobin (Hb) of 2.6 g/dL, RBC  $0.9 \times 10^9/L$ , MCV 98.2 fl, RTC 5.7%, WBC  $15.4 \times 10^9/L$  and platelets  $638 \times 10^9/L$ ; total bilirubin levels were 127 micromol/L, with a direct fraction of 19.2 micromol/L. Indirect and direct antiglobulin tests were strongly positive, and nonspecific IgG autoantibodies were detected. Serum immunoglobulin levels were within the normal range for his age. Chest radiography was normal, and abdominal ultrasound revealed a mild splenomegaly and hepatomegaly. He received intravenous immunoglobulins and corticosteroids; however the hemolysis continued and a transfusion of packed red cells was followed by severe hemoglobinuria. He then



