

Table 2 Summary of the data collected for the main variables under study in the group of patients without CKD.

Patient	Current age	Sex	Prenatal DX	Genetic testing	Liver involvement	Renal size	HBP	Proteinuria	Transplant
1	0.8	M	Yes	—	No	↑	No	Yes	—
2	9	F	No	—	Liver fibrosis + PH	↑	Yes (2 AHT drugs)	Yes	—
3	4	M	Yes	—	No	Normal	No	No	—
4	23	M	No	—	Liver fibrosis	↑	Yes (1 AHT drugs)	Yes	—
5	18	M	Yes	—	No	Normal	Yes (1 AHT drugs)	No	—
6	16	M	No	—	No	↑	No	Yes	—

HBP, high blood pressure; AHT drugs, antihypertensive drugs; CKD, chronic kidney disease; DX, diagnosis; F, female; M, male; PH, portal hypertension.

Current age: age in years at the time of the study.

Chief among the limitations of our study is the small sample size, which precludes the extrapolation of our findings to the larger population and reduced the statistical power of the analyses. In addition, only 2 patients underwent genetic testing, which limited our ability to draw conclusions regarding the role of genetic testing in the management of this disease.

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How do we treat Kaposiform haemangioendothelioma?☆



¿Cómo tratamos el hemangioendotelio kaposiforme?

Dear Editor:

Kaposiform haemangioendothelioma (KHE) is a rare, vascular tumour that has little metastatic potential but can be locally aggressive and may be life-threatening. It is diagnosed based on the findings of imaging tests and gross and histological features. It usually presents as a single lesion in the retroperitoneum or subcutaneous tissue, and in 30% of cases it is associated with Kasabach–Merritt syn-

drome (KMS), a coagulopathy that has complications that are more severe than those of KHE alone. The Sociedad Española de Hematología y Oncología Pediátrica (Spanish Society of Paediatric Haematology and Oncology) proposes surgical resection as first-line treatment, but the involvement of vital structures may preclude this option. In such cases, the use of a combination of antiplatelet therapy and systemic corticosteroid therapy is recommended for first-line treatment, reserving treatment with vincristine, cyclophosphamide, interferon alfa or other cytostatic agents for refractory cases.¹

We present the 3 cases of KHE managed in the past decade in our tertiary care hospital, one of whom was a patient with underlying sickle cell disease, a comorbidity that has not been described previously.

Case 1: full-term infant with a congenital violaceous cervical mass, hard to de touch and extending from the left retroauricular area to the edge of the right preauricular area (Fig. 1). A magnetic resonance image (MRI) scan confirmed the diagnosis of KHE (Fig. 2). The patient presented with thrombocytopenia (25 000/dL) and D-dimer elevation (3000 µg/L), which suggested the additional

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Figure 1 Congenital violaceous cervical mass.



Figure 2 MRI. Heterogeneous hyperintense lesion on T2-weighted image.

presence of KMS. Treatment started with methylprednisolone, antiplatelet therapy and vincristine, which resulted in transient improvement. This was followed by a drop in the platelet count to 5000/dL in the context of necrotizing enterocolitis. Cyclophosphamide was added to the treatment, followed by sirolimus due to nonresponse, which achieved a gradual decrease in tumour size and normalization of the laboratory test results. The patient underwent surgical resection of the mass at age 13 months. At age 22 months, the patient continues to be healthy and without recurrence.

Case 2: girl aged 2 years brought for consultation after detection of an abdominal mass in the course of a febrile illness. The findings of the ultrasound examination, MRI scan and biopsy confirmed the diagnosis of KHE restricted to the muscles of the right abdominal wall, with no laboratory abnormalities suggestive of KMS at onset. Treatment started with methylprednisolone, but it was switched to vincristine after 3 weeks due to nonresponse. After the fifth dose, there was evidence of thrombocytopenia (3000/dL) and D-dimer elevation (12 400 µg/L) compatible with KMS. This was followed by intraarterial embolization of the tumour by interventional radiology, with little improvement. Since the patient showed little progress, vincristine was discontinued and replaced by everolimus, which achieved a reduction of

the tumour. The patient underwent resection of the tumour at age 4 years. At present, the patient is 6 years old and remains disease-free.

Case 3: infant aged 7 months with sickle cell disease presenting with a hard lump in the deep planes of the left arm. After 3 months of follow-up during which a vaso-occlusive crisis had been suspected, the mass increased in size, leading to performance of a biopsy and a confirmed diagnosis of KHE. Although the initial laboratory test results had been normal, at this point the patient exhibited sudden thrombocytopenia (26 000/dL) and D-dimer elevation (4430 µg/L), suggestive of KMS. Treatment was initiated with vincristine, which achieved a reduction of the tumour size and normalization of the laboratory test results. After the seventh dose, the patient experienced sudden deterioration and was brought to the emergency department with cardiac arrest. The patient exhibited marked splenomegaly, which suggested splenic sequestration secondary to the underlying sickle cell disease. After advanced cardiopulmonary resuscitation failed, the patient was declared dead.

The cases presented here illustrate the considerable heterogeneity found in the management of this disease. Furthermore, given the low incidence of KHE, the literature on the subject is limited to a few case series. This evinces a need for updated guidelines including new therapeutic alternatives. The use of corticosteroids has not been assessed in clinical trials, and most published studies have reported a partial response or a lack of effectiveness when used as monotherapy. Selective tumour embolization seems to achieve a transient improvement in tumour size and platelet counts, so it may be indicated in severe cases as an adjuvant to medical treatment. Total surgical resection, when feasible, is usually the most effective treatment. In some cases, vincristine has achieved complete resolution of the tumour and normalization of laboratory tests.² Propranolol also appears to be useful in the management of KHE, although the results on this subject are contradictory.^{3,4} Clinical trials and case studies are currently underway to investigate the use of sirolimus and other mTOR inhibitors, so far with promising results,^{5,6} and some hospitals are using these drugs as first-line treatment. Although it is a challenging task on account of the low incidence of KHE, there is a clear need for comparative studies of currently used and newly proposed treatments for the purpose of updating management guidelines.

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Neonatal haemochromatosis: 10 years into a paradigm shift[☆]



Hemocromatosis neonatal. Diez años en un cambio de paradigma

Dear Editor:

Neonatal haemochromatosis (NH) is the leading cause of acute liver failure in the neonatal period.¹ Recent discoveries on its aetiology and pathogenesis have led to a radical shift in its management and prognosis.^{1,2} In 95% of cases, the aetiology involves an alloimmune disease occurring in the gestational period.^{1,3} The clinical presentation of NH varies widely and is nonspecific. The classic presentation includes hypoglycaemia, jaundice and coagulopathy. The definitive diagnosis is based on the detection of iron accumulation in extrahepatic tissues⁴ through examination of biopsy samples or magnetic resonance imaging (MRI). Immunochemical evidence of complement-mediated liver injury is characteristic of gestational alloimmune liver disease (GALD).² Traditional treatment (iron chelators and antioxidants) was associated with a survival of less than 20%, and patients typically required a liver transplant.¹ New treatments (exchange transfusion and intravenous immunoglobulin therapy [IVIG]) have increased survival without transplantation to 75%.⁵ The most important change is that prenatal prevention has now become possible with administration of IVIG during pregnancy, with an efficacy nearing 100%,⁶ once the diagnosis of GALD is confirmed.

The aim of the review presented here was to analyse the cases of NH managed in our department in a period of 10 years and to assess the impact of recent advances in terms of patient outcomes and survival. We conducted a retrospective study by reviewing the cases of NH diagnosed between January 2005 and December 2014 in our hospital. We collected data on gestational age and birth weight, family history, obstetric history (including findings of pre-

natal ultrasound examinations), clinical manifestations and timing of onset, manifestations during the course of the disease, laboratory abnormalities, findings of imaging tests, comorbidities, histopathological features, time elapsed to diagnosis, treatment received and patient outcomes.

We identified 6 cases of NH in the past 10 years (4 in girls and 2 in boys). There was no relevant family history in any case. All mothers were healthy, all but one had had previous pregnancies, and 3 had a history of miscarriage. In 4 cases, there was a history of oligohydramnios and in 3 cases a history of intrauterine growth restriction. Three of the patients were born preterm and another 3 were small for gestational age.

There was considerable variation in the clinical presentation. Three patients had onset within 24 h from birth with jaundice and exhibited progressive liver injury. Another patient required admission to the neonatal intensive care unit due to extreme prematurity and developed hepatomegaly and cholestasis at 12 days post birth, with subsequent progression of liver injury. Another patient was admitted due to a prenatal diagnosis of congenital heart disease and dysmorphic features, and developed refractory shock of unknown origin, oliguria and liver failure in the first hours of life. The last patient presented with refractory shock and multiple organ failure from birth and had a fulminant progression that led to death 5 days post birth. All patients had kidney failure. Two patients had hypothyroidism, one of them associated with pancreatic insufficiency. All had anaemia, 4 had thrombocytopenia and 1 pancytopenia. There was a moderate transaminase elevation. All patients had coagulopathy, cholestasis, hypoalbuminemia, elevation of serum ferritin and iron and saturation of transferrin and α -fetoprotein. The initial abdominal ultrasound scan was normal in 4 patients, with abnormal findings in subsequent scans. Four patients underwent an MRI examination, which evinced iron overload in the liver and pancreas.

The diagnosis was made by examination of open liver (Fig. 1) and oral mucosa biopsy samples in 5 patients, and during the post-mortem examination in the remaining patient. In one of the patients, the diagnosis was also made based on the positive results of immunohistochemical analysis.

As regards treatment, 3 patients received exchange transfusions and 2 received IVIG. Three were treated with

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