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Case Report

Sars Covid-19 Presenting as Blueberry Muffin Baby "Sbbmb" Syndrome: A Case Report and Literature Review

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Abstract:

Blueberry Muffin Baby is a rare neonatal skin syndrome characterized by disseminated, erythematous, purplish papules and nodules. Several causes must be sought, including congenital infections, neonatal hemolytic diseases and tumor pathologies. We report the case of a newborn in whom the syndrome From "Blueberry Muffin Baby" led to Covid-19 diagnosis with a favorable evolution marked by spontaneous remission.

Keywords: blueberry muffin Baby; Covid-19; newborn; dermal hematopoiesis

Introduction

Female newborn, normal phenotype, with no concept of parental consanguinity, nor any particular history, resulting from a pregnancy carried to term, followed by a mother immunized against toxoplasmosis and rubella presenting with pregnancy-related hypertension, the delivery was vaginal with good adaptation to extra-uterine life. She was admitted from birth for the management of a generalized maculopapular skin rash.

The clinical examination on admission reveals several macular and infiltrated lesions as well as nodules of purple and purplish blue color diffused over the entire body surface including the face and scalp of size varying between 2 and 6 mm in diameter, creating a painting of Blueberry muffin baby (Figures 1, 2 and 3). The general condition was preserved; there was no lymphadenopathy or hepatosplenomegaly.

Figure 01

Figure 02

Figure 03

The biological assessment revealed leukopenia at 5000/mm3 and anemia at 7 g/dl normochromic normocytic blood smear with reticulocyte level >1.2%.

The medullogram without abnormality, the skin biopsy showed a skin covering of normal morphology, The TORSCH serology (toxoplasmosis, rubella, syphilis, cytomegalovirus, herpes) are negative.

Covid 19 serology is positive (IgM+IgG) in the newborn and his mother with positive maternal PCR.

CRP, blood culture, liver, kidney and phosphocalcic tests are correct.

Chest x-ray, abdominopelvic and trans-fontanellar ultrasound without abnormalities.

The newborn is transfused with type and Rh blood cell pack with antibiotic therapy "Amoxicillin 100 mg/Kg/day+Aminoside 5 mg/Kg/day". The evolution is marked by normalization of hemoglobin levels after the transfusion, white blood cells are normalized after 8 days of antibiotic treatment, progressive regression of the skin lesions until their total disappearance at the age of 1 month. Covid-19 serology at 1 month IgM negative and IgG positive. Clinical and biological monitoring every two months then every 6 months until today is spectacular.

Discussion

Blueberry Muffin Baby syndrome was initially described in the 1960s due to congenital rubella lesions [1]. It corresponds to disseminated papulo-nodules, present from birth and characterized by elements ranging from bright red to blue-gray. It is an often generalized rash predominating on the head, neck and trunk, measuring approximately 2 to 8 mm in diameter. These lesions generally disappear after 3 to 6 weeks after birth, gradually taking on a pale brown color [4]. This syndrome represents a postnatal expression of dermal hematopoiesis which may persist after birth if erythropoietic stress is severe or it may correspond to neoplastic infiltration [5-6].

In the neonatal period, dermal hematopoiesis is linked to congenital infections such as toxoplasmosis, rubella, cytomegalovirus, coxackie virus B2 and parvovirus B19, or to severe hemolysis linked to rhesus incompatibility or incompatibility in the ABO system, hereditary spherocytosis, or transfusion-transfused syndrome in twins [1,7].

Among the malignancies associated with SBBMB, neuroblastoma is the most common condition, while rhabdomyosrcoma, histiocytosis and congenital or neonatal leukemia are very rare. The criteria for malignancy of a skin nodule are the explosive nature of the skin lesions, alteration of the general condition, lymphadenopathy, hepatosplenomegaly [3,4,7].

In our patient: The diagnosis of SBBMB was easy given typical skin lesions. Conducting the etiological diagnosis was difficult given the negative results of different etiologies reported in the literature. The viral infection by Covid-19 was retained after eliminating the majority of the above-mentioned causes, the positive serology of our newborn and the confirmation of Covid-19 infection in his mother also the polymorphous clinical picture published following the emerging Covid-19 infection since 2020, some cases of which remain poorly known or new, hence the interest in continuing to collect data on cases Covid19 infection clinics in the neonatal period in order to improve our understanding of the evolution of the disease to have established a well-codified protocol for sick or asymptomatic Covid-19 newborns in order to improve prevention measures.

Conclusion

Before all Blueberry Muffin Baby, it seems important to discuss congenital leukemia given its severity despite its rarity at this age. However, these may be dermal hematopoiesis reactions secondary to congenital infections, hemolytic diseases, metastases of neuroblastoma, rhabdomyosarcoma, or even histiocytosis. Today, in the face of the Covid 19 pandemic, the full spectrum of SARS-CoV infection in children aged 0-18 remains to be determined.

According to several studies, children presenting sometimes atypical clinical signs may have a predisposition to develop a more severe form of Covid-19, but the potential of comorbidities as a risk factor favoring an unfavorable outcome in the child remains to be established. Currently we have sufficient scientific data showing us that the majority of children infected with SARS-CoV have a favorable outcome.

Expression of interest

The authors declare that they have no conflict of interest relating to this article.

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