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Case Report

Investigation Giant Placental Chorioangioma Associated with Neonatal Sepsis-like Disease: A Case Report

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ABSTRACT

Giant chorioangioma is a placental tumor associated with gestational complications such as preeclampsia, polyhydramnios and hemorrhage. In addition, this tumor might lead to the incidence of non-immune fetal hydrops, heart failure, anemia, thrombocytopenia, weight loss and death among neonates.

In this case report, the clinical image of a term newborn (weighing 2800 g) with one-minute Apgar score of 7 was suggestive of sepsis on the second day of birth. Moreover, epistaxis, petechia, anemia, thrombocytopenia, hypothermia, cardiomegaly and hepatosplenomegaly were detected in the neonate, which required blood transfusion and antibiotic therapy. However, in case of chorioangioma in the gestational history, it was possible to detect the motive for a clinical sepsis-like disease.

According to the pathophysiological explanation, this tumor functions as a "dead space", increasing the rate of blood ejection with subsequent fetal heart failure, anemia through intratumoral hemorrhage or fetal-maternal transfusion, and consumption or intratumoral sequestration resulting in disseminated intravascular coagulation. After blood transfusion, all treatment procedures, including antibiotic therapy, were suspended due to the recovery of the newborn.

Keywords: Chorioangioma, Newborn, Placenta, Sepsis-like disease

Introduction

Chorioangioma is the most common placental tumor, which is generally small. If the tumor is larger than 5 cm (i.e. giant chorioangioma), it may be associated with gestational complications such as preeclampsia, polyhydramnios and hemorrhage. In addition, giant chorioangioma could lead to the incidence of non-immune fetal hydrops, heart failure, anemia, thrombocytopenia, weight loss and death (1).

Case report

A term neonate (weighing 2800 g) was admitted in January 2010 with one-minute Apgar score of 7. The clinical image of the newborn was indicative of neonatal sepsis on the second day of birth, and the patient was presented with epistaxis, petechial bleeding, significant anemia, thrombocytopenia, hypothermia, cardiomegaly and hepatosplenomegaly.

Blood transfusion was performed on the third day of birth and the neonate received antibiotic therapy for neonatal sepsis as well.

Gestational history

A 37-year-old woman (secundigravida) was presented with transvaginal hemorrhage at the 35th week of gestation, and a placental tumor was detected during ultrasonography. After childbirth via cesarean section, the placenta examination confirmed a possible giant chorioangioma; therefore, histological examinations were performed immediately.

The placental dimension (22x18x2.5 cm), weight (755 g) and macroscopic histopathological examinations revealed a tumor in the face of the fetus, measuring 9x8x2 cm, covered by transparent ovular membranes of irregular surface, nodulations and vascular structures, connected to the placenta. The maternal face and the umbilical cord were normal (Figure 1).

Furthermore, light microscopic examinations were indicative of the proliferation of vascular cells, which were anastomosed with fibrous tissues, surrounded by the trophoblastic epithelium (Figure 2).

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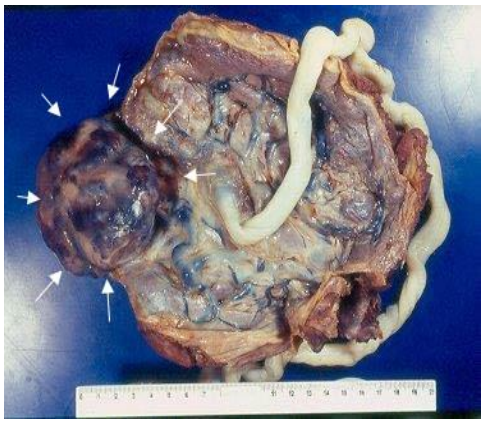

Figure 1. Placenta's and chorioangioma's macroscopic aspects

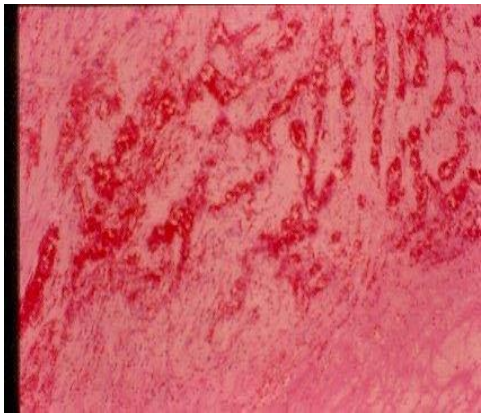

Figure 2. Chorioangioma's microscopic aspect

Discussion

The immediate examination of the placenta, as well as the normalization of the laboratory results of the newborn after the replacement of consumed blood elements, allowed the stabilization of the clinical image of the patient and the precocious suspension of the antibiotic therapy.

On the other hand, the pathophysiological explanation for the fetal sepsis-like disease indicated that the tumor functioned as "dead space" through arteriovenous shunts, increasing the rate of blood ejection (i.e. hyperkinetic heart syndrome) and causing subsequent fetal heart failure, hydrops and death (2). In addition, anemia was assumed to be the result of intratumoral hemorrhage or fetal-maternal transfusion in the present case.

Moreover, thrombocytopenia and disseminated intravascular coagulation were observed to be caused by the consumption or intratumoral sequestration (2, 3). Auspiciously, the hematologic image of the patient was compatible with sepsis; in fact, it was found to be due to blood sequestration, with fast recovery through the transfusion and replacement of the consumed factors.

Several researchers emphasize the use of lasers in successful intrauterine treatment in order to obliterate the vases that supply the chorioangioma, and avoid fetal death as a result (4).

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Conclusion

In the present case, the diagnosis of placental giant chorioangioma was accomplished during childbirth, facilitating the conduct of blood replacement and stabilization of newborn's clinical image. Moreover, unnecessary treatment procedures for neonatal sepsis were successfully avoided.

Conflicts of interest

The authors declare no conflicts of interest regarding the publication of this paper.

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