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Mini Case Study

Allergy to B-Lactamins: Anaphylactic Shock at the 1st Injection of Ampicillin in a Newborn on D1 of Life

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Abstract

Introduction: Allergy to penicillin and other beta-lactams is the most common cause of anaphylactic reactions.

Our Observation: This is a newborn female born at term by cesarean indicated for a scarred uterus, APGAR 8/10 then 10/10, birth weight 3 kg 600, with major criteria of infection (positive CRP in mother, RPM of more than 48 hours, subicterus in the newborn and her CRP returned positive) dual antibiotic therapy, ampicillin and gentamycin was indicated, the newborn present at the 2nd minute of the injection of ampicillin, anaphylactic shock. the immediate management of this newborn enabled him to save him.

Comments: Ampicillin was substituted by a macrolide with CRP negation after 48h. The absence of family atopic land, the mother placed on ampicillin in the antepartum may raise the hypothesis of antenatal immunization of our patient. This newborn baby is currently being monitored in order to perform skin tests because according to several studies it has been observed that after 5 years or more: 50% of subjects who presented allergic reactions to penicillin had negative tests and that after 10 years this percentage increases to 75%. phenomenon of loss of specific immune memory in the absence of absolute contact with the allergen in question.

Conclusion: Antibiotic antenatal immunization exist.

Keywords: *Allergy; B-Lactamins; Anaphylactic Shock; Ampicillin*

Introduction

Allergic reactions to penicillins are the most common cause of IgE-dependent reactions secondary to drugs. Penicillins belong to the beta-lactam family, as do cephalosporins, monobactams, carbapenems, oxacephemes and clavams. All of them have in their structure a beta-lactam nucleus and a side chain, except the clavams.

Allergic reactions usually seen in newborns are late after a few days of treatment, and most often manifest as toxo-allergic erythema [1-5].

Our Observation

This is a newborn female.

Family history: Nothing.

Personal history

Pregnancy well monitored, mother hospitalized for premature rupture of membranes, her CRP was positive, and was put on bi-antibiotic therapy such as ampicillin, and injectable gentamycin.

The delivery was by cesarean section, at term indicated for a scarred uterus and 48-hour RPM, APGAR 8/10 then 10/10, birth weight 3 kg 600.

The clinical examination: Early subicterus, the rest of the clinical examination did not find any abnormalities.

Paraclinical examinations:

- CRP: Positive
- Indirect bilirubin jaundice
- The rest of the infectious assessment could not be done due to lack of resources.

Treatment:

- Biantibiotic therapy: Ampicillin and gentamycin
- Phototherapy
- Control of bilirubinemia and CRP.

Evolution

The newborn presents at the 2nd minute of the ampicillin injection, anaphylactic shock (severe bradycardia, bronchospasm then gasps, edema, significant abdominal bloating and peripheral vasodilation).

The immediate care of this newborn made it possible to save him. The treatment started with injectable adrenaline and vascular filling.

Ampicillin was substituted with a macrolide negative CRP after 48h.

Discussion

The absence of a familial atopic site, and the treatment of the mother with ampicillin in the antepartum which could raise the hypothesis of the antenatal immunization of our patient.

Monitoring and prognosis

This newborn baby is currently being monitored in order to perform skin tests because according to several studies it has been observed that after 5 years or more: 50% of subjects who presented allergic reactions to penicillin had negative tests and that after 10 years this percentage increases to 75% phenomenon of loss of specific immune memory in the absence of absolute contact with the allergen in question.

Conclusion

Antibiotic antenatal immunization exist.

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