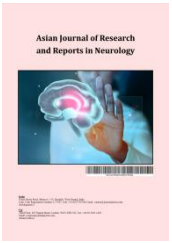

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Unusual Evolution of a Serosanguineous Bump: About a Case

N. Hazzzab [a], A. Fadil [a*], W. Lahmini [a] and M. Bourouss [a]

[a] Pediatric Emergency Department, CHU Mohammed VI, Marrakech, Morocco.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Case Report

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ABSTRACT

The present case report highlights an Unusual evolution of a serosanguineous bump. We report the case of a male infant, aged 2 months, born at 40 weeks of amenorrhea, resulting from a well-monitored pregnancy at term, a dystocic vaginal delivery by suction cup, APGAR at birth 10/ 10th. The instrumentation of vaginal extractions is a widespread obstetrical practice. Different instrumental extraction techniques can be proposed, mainly the suction cup and forceps, two methods which are not without risk for the newborn. From the outset, it appears that there are different neonatal complications from the instrumentation of vaginal delivery. In our case of a superinfected serosanguine bump, the diagnosis was obvious, we had instrumental dystocic delivery as a risk factor, the collection was drained and the bacteriological samples had revealed a mutiresistant *staphylococcus* sensitive to aminoglycoside and fluoroquinolone, and the evolution was favorable by resorption of the abscess.

Keywords: Serosanguineous bump; obstetrical practice; dystocic delivery.

**Corresponding author: E-mail: amalfadfad@gmail.com;*

1. INTRODUCTION

The presence of bumps on the scalp of the newborn is a fairly common situation in perinatal care. It is the most frequent expression of obstetrical trauma during dystocic or instrumented deliveries [1,2]. Their occurrence after a eutocic delivery is possible and should not be ignored by clinicians. In the majority of cases, these lesions are without serious consequences [3,4]. But sometimes, their severity can threaten the vital prognosis, by severe anemia, hypovolemic shock or sepsis by superinfection of the hump [5,6].

2. CASE PRESENTATION

We report the case of a male infant, aged 2 months, born at 40 weeks of amenorrhea, resulting from a well-monitored pregnancy at term, a dystocic vaginal delivery by suction cup, APGAR (vitality assessement)at birth 10/10th. The clinical examination had objectified a small soft parieto-occipital swelling with pus issue related to a serosanguineous lump which spontaneously evolved into an abscess. The parents do not report any trauma or manipulation of the serosanguineous bump.

The transfontanllaire ultrasound had individualized a subcutaneous collection, extended, poorly limited, heterogeneous partitioned hypoechoic measuring 32mm maximum thickness and extended on the antero-posterior axis for about 18cm, not crossing the cranial vault, with absence of parenchymal lesions .

The bacteriological study of the pus with blood cultures had objectified a multi-resistant staphylococcus.

The management had consisted in the first place in a blood transfusion to stabilize the patient then in a surgical incision with a drainage of the abscess and a probabilistic systemic antibiotic therapy based on Ceftriaxone 100mg/kg/d then the relay after results of the samples bacteriological with fluoroquinolone 20mg/kg/d for 10 days combined with an aminoglycoside for 5 days. The evolution was favorable with the resolution of the abscess, and reduction of the infectious assessment: CRP at 15, White blood cell at 11600, PNN: 4060, Lymphocyte: 6264, with a hemoglobin at 18.7.

3. DISCUSSION

The aim of this work was to report a clinical case of superinfected scalp hump in a newborn with dystocic delivery, the complications of which required abscess drainage and appropriate antibiotic therapy.

The instrumentation of vaginal extractions is a widespread obstetrical practice. Different instrumental extraction techniques can be proposed, mainly the suction cup and forceps, two methods which are not without risk for the newborn. From the outset, it appears that there are different neonatal complications from the instrumentation of vaginal delivery. Certain traumatic complications, most often benign, can be attributed directly to the technique of instrumental extraction [7].

The estimated incidence of obstetrical trauma is 2 to 7 per 100 live births. Extracranial lesions are among the most frequent and cause bumps on the scalp of the newborn, in particular: the serosanguineous bump (BSS) or caput succedaneum, cephalohematoma (CPH) and subgaleal hemorrhage (HSG). Their diagnosis is often clinical, but imaging can be useful for lesion assessment. [8].

The sero-sanguine bump. It is very often associated with vacuum extraction. The examination finds from birth at the level of the presenting part of the baby's head (often the vertex), a swelling of the scalp poorly limited, bruised, soft, edematous and taking the pit, due to a subcutaneous effusion of serum and blood. It overlaps the cranial sutures, and can be associated with a cast. Its prognosis is generally good, but we can note certain complications such as secondary infection which remains exceptional [8].

The cephalohematoma is one of the most common obstetric traumas and consists of a collection of subperiosteal blood, resulting from the rupture of the superficial veins between the skull and the periosteum. It is found in 2.5% of live births. It is more commonly seen in assisted deliveries, and occurs in 1% to 2% of spontaneous vaginal deliveries, 6% to 10% of vacuum deliveries, 10% of vacuum assisted deliveries, and 4% of forceps assisted deliveries. Its spontaneous resorption is generally between 2 to 8 weeks. The most frequent complications are: anemia, hyperbillurebinemia, fibrosis, calcification. Infection remains a rare complication that results during incision for hematoma aspiration, but spontaneous infection remains extremely rare [9,10].

If an infected cephalohematoma is suspected, the diagnostic approach should be both local and systemic. aspiration should be considered. As well as carrying out blood culture and a lumbar puncture. Skull imaging to distinguish scalp abscess from osteomyelitis, epidural abscess or emphysema or subdural empyema, transfontanellar ultrasound can be used 1st [9].

The subgaleal hematoma: This hemorrhage is located under the galea, aponeurotic membrane located between the cranial box and the subcutaneous tissues, and between the frontal muscles in front and the occipital muscles behind. The subgaleal space is the seat of a venous network including in particular the emissary veins of Santorini, and consists of a very loose cellular tissue explaining the absence of mechanical hemostasis and the extensive and diffuse nature of the bleeding. . Subgaleal hemorrhage is often associated with coagulation disorders, severe arterial hypotension with an unfavorable outcome in 1/3 of cases (death, cerebral infirmity, epilepsy, severe hearing loss, renal vein thrombosis [7,11-17].

Intracranial haemorrhages : Intracranial haemorrhages are much rarer and can be subdural, subarachnoid, tentorial and more rarely involve the posterior fossa, including cerebellar intraparenchymal haemorrhages. Intra-ventricular or intra-parenchymal telencephalic hemorrhages are quite rare with an incidence <1/10,000. These cerebral hemorrhages sometimes originate from complications specific to abnormal labor which led to the use of the suction cup and not only to the use of an instrumental extraction method [7,9,18,19,20].

4. TREATMENT

Treatment and management of blood hump are observation-based. The majority of cases will resolve on their own within forty-eight hours, and management includes observation and reassurance only. Infants should continue to receive standard follow-up for neonatal jaundice. In rare cases caput succedaneum may cause new or worsened hyperbilirubinemia as bilirubin is resorbed into the systemic circulation, more rarely it may become calcified or infected.

The cephalohematoma resolves more slowly. It can become calcified or infected through iterative drainage punctures. Cases of massive cephalohematoma or subgaleal hematoma often justify: volume expansion or the use of vasoactive drugs for hemodynamic shock, transfusions of fresh frozen plasma, red blood cells or platelets [8,16].

In the event of superinfection of a cephalohematoma or a serosanguineous bump, the most implicated germs are staphylococcus or Escherichia coli, meningitis can be a complication of the superinfection, therefore antibiotic therapy based on ampicillin plus aminoglycoside must be started first. When meningitis has been ruled out, ampicillin, aminoglycoside or cephalosporins (e.g. Cefotaxime) can be started as monotherapy, and treatment should be continued for 10-14 days, but if meningitis is present, it should be continued for at least 21 days. When Staphylococcus aureus is the bacterium responsible for the infection treatment with Vancomycin should be started and continued for four weeks or more.

A diagnosed le is done and if there is no spontaneous drainage, the collection should be incised and drained. And if underlying osteomyelitis or epidural abscess is found, surgical debridement should be performed [9].

In our case of a superinfected serosanguine bump, the diagnosis was obvious, we had instrumental dystocic delivery as a risk factor, the collection was drained and the bacteriological samples had revealed a mutiresistant staphylococcus sensitive to aminoglycoside and fluoroquinolone, and the evolution was favorable by resorption of the abscess.

5. CONCLUSION

Whatever the type of delivery, the newborn must benefit from a rigorous examination and systematic monitoring after birth. In the event of a scalp bump, complications must be sought and specifically managed. Advocacy for good obstetric and perinatal practices must be carried out to deal with this problem.

CONSENT

As per international standard or university standard, parents written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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