Case report

Poisoning with local anesthetics following circumcision :a case report

Absdtract

Introduction: Circumcision or posthectomy is the removal of the foreskin, this act seems commonplace practiced by paramedical personnel or unqualified traditional practitioners who may cause significant complications.

Objective: Our work aimed to highlight one of the complications of this act which must remain a supervised medical act.

Observation: We report the case of a 2-month-old infant who presented with complications related to anesthesia. the clinic was dominated by convulsions and alteration of the state of consciousness 15 minutes after circumcision in this well infant carrying without any particular history. The evolution was favorable thanks to support rapid and urgent about 20 minutes with the cessation of convulsions and a return to consciousness, the patient was monitored for 48 hours then return home was indicated due tothe absence other complications.

Conclusion: Circumcision is a widespread act throughout the world either by medical necessity or by religious tradition. its trivialization and its practice by non-experts, explains the multiple complications observed**.**

Keywords:Circumcision-Poisoning - Xylocaine-Convulsion-Infant-Libreville

1. INTRODUCTION

Circumcisionis the surgicalremoval of the foreskin, alsocalledposthectomy. The intervention proposed to the boy consists of partially or completelyremoving the foreskin for medicalreasons or not. This intervention isbetterknownunder the termcircumcision, itconcerns 30% of the world male population [1]. Ritual practice imposed by mosaiclaw for the israelites, religious rite for muslims, and rite of transition to the adult state for several peoples of africa and the orient [2]. However, thisact minor surgeryissometimescarried out by paramedical and traditional personnel. Patrician in ourcontext. the latter ignore the notions of anatomy, aseptic and non knowledge of dosage related to anesthesia. This lack of knowledge can beharmful for children and affect the sexual and urinaryfunctionalprognosis, even the vital prognosis of the child. The fightagainst pain in a hospitalenvironmentisimperativeboth in terms of physiologicalthahuman, adequateanesthesiarequires an initial assessment of pain and itsmechanisms, appropriate monitoring and reassessment. A knowledge of possible

sideeffects and ability to manage them. Anesthesialocoregionalis a technique of choicesinceitprovideslevel 3 analgesia. pediatricanesthesia, thisprincipleisabandoned and the vastmajority of peri-nerve blocks are performedundergeneralanesthesia. The aim of thisworkis to highlight one of the complications of thisactwhich must remain a supervisedmedicalact**.**

2. CASE PRESENTATION &DISCUSSION

The infant G.J, male, aged 2 months, was hospitalized in the department of pediatric emergencies of the CHUME FJE on 08/21/21 for investigation and PEC of a medical condition convulsive evolving in a non-febrile context. The onset of symptoms was around 15minutes after the circumcision carried out in a local structure. The practitioner would have used a whole bottle of 2% xylocaine for anesthetic purposes, i.e. 20 ml intramuscularly. Thisinfant has no particular medical-surgical history, circumcision was scheduled and carried out at the request of parents. The clinical examination on admission found a Weight: 7100 g, a temperature 36.6 c° a heart rate at 160 bpm, a syndrome of cortical irritation with convulsions not stopping despite 3 doses of diazepam at 0.5 mg/kg at 5 min intervals, a syndrome of deterioration of general condition with a score of Blantyre rated 3/5, reactive isocore pupils, blood sugar level of 5.6 mmol/l and SaPO2 94% ambient air. The problem posed was the etiology of a convulsive illness in a infant in apparent good health and having received a high dose of xylocaine injection. We discussed metabolic causes that we eliminated in the face of an assessment. normal metabolic rate (blood ionogram, serum calcium and blood sugar). We therefore retainedxylocaine poisoning. The treatment consisted of clearing the airways superior, oxygen therapy at 3 L/min with glasses, hydration at 80ml/kg/d.The evolution was favorable with the improvement of the convulsions after 15 min, the returnprogressive to normal consciousness after 4 hours, discharge was decided after 48 hours of monitoring with normal EEG.

We reported a case of post-circumcision intoxication. Circumcision is an act responded around the world, in 1996, during the 4th international conference organized in Lausanne, heIt was estimated that 13,300,000 male children were circumcised each year [3]. The incidence of complications varies depending on the studies, whether or not they were carried out in a healthcare establishment, operator qualification and duration of follow-up. During studies controlled, randomized studies aimed at evaluating the protective effect of circumcision medically framed on HIV infection, carried out in Africa, the authors reportedcomplications in 1.5 to 3.8% of cases [4]. The age of our patient is 2 months, this age isfound in other studies which encourage circumcision in the neonatal period because theyhighlight its prophylactic effect against STIs, urinary infections as well as certaincancers of the genital tract [5-6]. According to WHO, circumcision should be practicedexclusively by competent health professionals and should be carried out in regulatory hygiene conditions, conditions necessary to reduce complications [7,8]. They vary in frequency and severity and each requires an attitude particular therapy. Some are seen early, anesthetic accidents as found in the literature and in our patient.In our case it was carried out by unqualified medical personnel, thus increasing the risk of complications. Our patient presented convulsions 15 minutes after the circumcision and after use of xylocaine, this confirms the literature data on neurological toxicity of local anesthetics at high concentrations. The margin of safety is very low, and anesthesiologists are very attentive to the appearance of signs announcers. Systemic

neurological toxicity is by far the most common of toxic manifestations with the frequency of a convulsive accident per 800 to 1,000 loco-regional anesthesia [9]. Xylocaine 20 mg/ml without preservative is a solution Lidocaine Hydrochloride injection, it is a local anesthetic used to anesthetize part of the body during surgical operations and also to relieve pain. There maximum recommended dose is between 2 and 7 mg/kg Local infiltration and anesthesia regional. The occurrence of an adverse effect should raise suspicion of an overdose. The reactions toxic, indicative of an overdose of local anesthetic, can appear in two conditions: either immediately by a relative overdose due to intravenous passage accidental, or later by a true overdose due to the use of too much amount of anesthetic. Signs of toxicity can be; in terms of the nervous system central sensations of dizziness, numbness of the lips and tongue, ringing in the ears, hearing dysfunction and dysarthria,disorientation and occasional feelings of drowsiness. Objective signs of toxicity, include shivering, muscle contractions and tremors initially involving themuscles of the face and distal parts of the extremities and ultimately convulsions appear. If a very large dose is administered, the first signs are monitored quickly by a state of generalized depression of the central nervous system which can lead to respiratory arrest [10]. In children from approximately 10 days to 4-6 months, lidocaine 1%, at a maximum dose of 7 to 10 mg.kg provides short or medium duration anesthesia [11], in our case the patient received a dose of 16 mg/kg causing convulsions after 15 minutes. The poisonings appear when the so-called toxic plasma thresholds are exceeded following an accidental injection or an overdose due to a miscalculation. This toxicity manifests itself first by neurological signs with prodromes which precede the convulsive attack. Several experimental works have shown that the mechanisms involved are multiple. with dysfunction of calcium and mitochondrial metabolism [12].

4. CONCLUSION

Circumcisionis a widespread act throughout the world either by medical necessity or by religious tradition. Indeed, its trivialization and its practice by non-experts, explain the multiple complications observed as described in our case, thus being able to put into play the functional, aesthetic and sometimes vital prognosis of patients. It is essential that this act be supervised in order to minimize the frequency of complications.

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