



## CONSERVATIVE TREATMENT APPROACH FOR A PRETERM NEONATE WITH GIANT OMPHALOCELE IN A LOW-INCOME COUNTRY (LIC)

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### **ETHICS STATEMENT**

This study fulfils the exemption criteria set by the MSF ERB and was approved for submission by the OC Medical Director.

### **INTRODUCTION**

Omphaloceles are a midline anterior body wall defects which are covered by a membrane (peritoneum, Wharton's jelly and amnion)<sup>1</sup>. The incidence is estimated at 1-3.38 in 10.000 live births<sup>2,3</sup> and it can be associated with various congenital anomalies, e.g. cardiac, neurological or syndromic disorders<sup>2</sup>. In LIC primary surgical intervention poses big challenges and a conservative approach might be favourable<sup>1</sup>.

### **CASE DESCRIPTION**

The female neonate was born at home via vaginal delivery as first child of a 19-year-old mother. The delivery was attended by a traditional birth attendant and directly transferred to our secondary level hospital.

On admission, the patient weighed 2.44kg with an estimated gestational age of 34-35 weeks. The child was put on intravenous fluids and intravenous antibiotics (ampicillin and gentamicin) by the night shift team. The omphalocele, measuring 5x6cm was covered with sterile gauze, humidified with NaCl 0.9%.

On day 2 of life, a paediatric and surgical assessment was conducted to establish the further management. The neonate did not present any other anomalies on examination. Ultrasounds of the brain and heart were performed with normal findings. The child was passing meconium and urine.

In accordance with the hospital's capacities – NICU without mechanical ventilators – primary closure of the omphalocele was graded as high risk, due to possible anaesthetic, peri- and postoperative risks.

A conservative approach was favoured: daily dressings of the omphalocele with 1% silver sulfadiazine cream and paraffin gauze and additional application of compressive bandage. Antibiotics and iv fluids were discontinued within the first week. Urine and stool output were monitored closely.

Subsequently the omphalocele granulated slowly. The treatment was conducted until full skin closure, resulting in a ventral hernia. The child gained weight well (4.9kg on discharge).

### **DAY 1 AFTER BIRTH**



### **DAY 14 AFTER BIRTH**



### **2 MONTHS AFTER BIRTH**



### **3,5 MONTHS AFTER BIRTH; 2 WEEKS AFTER DISCHARGE**



### **DISCUSSION**

In LIC, a conservative approach to omphaloceles might be favourable considering higher risks of anaesthesiologic and peri-operative complications. Concomitant malformations must be ruled out, considering all diagnostic options available. A close monitoring of possible infections, urine and stool output must be guaranteed. Secondary closure can be performed later in life once the child has grown.

### **REFERENCES**

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