World Journal of Pharmaceutical and Life Sciences
WJPLS
www.wjpls.org
SJIF Impact Factor: 6.129

MANAGEMENT OF ANENCEPHALIA IN A PREGNANCY OF 18 WEEKS + 4 DAYS IN THE MATERNITY OF THE EL HARROUCHI MOTHER-CHILD HOSPITAL: DESCRIPTIVE STUDY ABOUT A CASE

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Article Received on 23/11/2023 **Article Revised on 13/12/2023** **Article Accepted on 02/01/2024**

SUMMARY
Anencephaly is a congenital malformation of the central nervous system, present from conception, its origin is at the very beginning of intrauterine life and is one of the neural tube anomalies, like spina bifida, the diagnostic and therapeutic elements of which are of certain importance. This malformation results in the total or partial absence of one of the elements of the neural tube at its anterior end, namely the brain, the skull or the scalp. We report a case of anencephaly in a pregnancy of 18 weeks + 4 days collected at the Maternity Department of the Abderrahim Harrouchi Mother-Child Hospital; The study of this observation allowed us to analyze this condition, its occurrence, its frequency, the means of its positive diagnosis, as well as the appropriate therapeutic measures in order to limit its consequences.

KEYWORDS: This malformation results in the total or partial absence of one of the elements of the neural tube at its anterior end, namely the brain, the skull or the scalp.

INTRODUCTION

Anencephaly is a malformation that occurs at conception resulting from the absence of normal closure of the neural tube at the anterior end (cephalic neuropore), generally between the 26th and 27th day of pregnancy. The incidence varies between 3 and 4 cases per 10,000 worldwide.

Having no forebrain, the fetus has neither the ability to think nor coordinate. The brain is thus exposed due to the lack of development of the skull and scalp. This anomaly could be associated with the absence of spinal cord (amyelencephaly). Affected newborns are usually deaf, blind and unable to feel pain. They are also non-viable without a brain but can live for a few days if there is a partial brain present.

There is no treatment for anencephaly. Life expectancy is extremely reduced. Prevention remains an essential element in treatment. The objective of this study is to study the socio-demographic, maternal, obstetric and neonatal components of anencephaly and analyze the responsible risk factors.

METHODS

Our study is a descriptive analysis focusing on 1 case of anencephaly collected at the maternity ward of Harrouchi hospital in 2022. Our analysis focuses on the social, clinical and overall therapeutic characteristics of this anomaly of neural tube formation.

RESULTS

This is a 33-year-old patient, IIG IP, 1EV/VB, with no particular pathological history. Admitted for therapeutic termination of pregnancy for anencephaly in pregnancy of 18 weeks + 4 days (DDR: 10/15/2022).

The examination on admission was unremarkable, with a closed posterior cervix on vaginal examination and no bleeding found.

The obstetric ultrasound revealed an evolving singleton pregnancy, positive cardiac activity, anencephaly was detected, amniotic fluid of sufficient quantity, the length of the femur is estimated at 3.3cm corresponding to 20SA + 3J and the circumference abdominal estimated at 13.45cm corresponding to 19 weeks.

The morphological ultrasound carried out immediately made it possible to draw up a more exhaustive description of the fetus. The fetal appendages are composed of a normally inserted anterior placenta, amniotic fluid in normal quantity and an umbilical cord without anomalies. The cephalic pole highlights an

absence of cranial vault related to anencephaly. The face has an inter-orbital diameter within normal limits and continuity of the upper lip. The spine is regular, with no identifiable closure defect. The heart contains its four cavities seen and balanced. The abdomen is without abnormalities. The urinary system shows normal kidneys and bladder. The diaphragmatic domes are normally followed. There were no abnormalities detected in the limbs. In conclusion, this is a 19-week progressive single-fetal pregnancy describing anencephaly.

Figure 1: The cephalic pole highlights an absence of cranial vault related to anencephaly.

Figure 2: The abdomen is without abnormalities.

Figure 3: Cardiac chambers seen and balanced. Positive cardiac activity.

Figure 4: Lower Extremities Without Abnormalities.

A complete biological assessment was carried out, returning completely normal, thus allowing the artificial induction of labor as part of the therapeutic termination of pregnancy based on misoprostol tablets at a rate of 400 micrograms every 3 hours. The patient was thus triggered upon admission.

The evolution was marked by the implementation of 4 doses of misoprostol before expulsion, the product of conception of which is a male fetus weighing 300 grams, without cardiac activity at birth. Clear anencephaly was observed without development of the skull or scalp exposing the brain. A defect in the union of the neural tube at its upper end was also detected without affecting the rest of the spine. The four upper and lower extremities are free from any malformation.

Figure 1 and 2: The cephalic pole highlights an absence of cranial vault related to anencephaly.

Figure 3 and 4: Exposure of the brain and absence of cranial vault and scalp.

DISCUSSION

Anencephaly is the consequence of failure to close the anterior neuropore around the 24th day of pregnancy. Birth defects of the central nervous system do not follow usual patterns of inheritance. The literature shows that a woman with a history of a pregnancy with a malformation such as anencephaly has a 3% risk of developing it again in her next pregnancy. This risk can be reduced by adopting preventive measures such as taking folic acid at a rate of 0.4 micrograms per day at least three months before pregnancy and during pregnancy; hence the need to establish a pre-conception schedule and strict monitoring of the pregnancy.

However, some risk factors remain unchanged and carry a higher risk of developing anencephaly in the fetuses of mothers who consume certain medications such as anti-epileptics or even insulin therapy in diabetics. Genetic counseling is essential for these patients. In addition, certain etiological factors such as the consumption of certain ancestral herbs such as Fenugreek during pregnancy, especially in our African societies, are significantly associated with neural tube malformations and the advent of perinatal asphyxia; in addition, hypervitaminosis A, vitamin B12 deficiency and hyperthermia are also associated.

Low socio-economic level is directly linked to the occurrence of anencephaly due to maternal nutritional deficiencies, particularly folic acid.

Anencephaly can be diagnosed during pregnancy by ultrasound and also by a maternal alpha-fetoprotein test.

The majority of newborns with anencephaly are stillborn or die within a few days at most. Newborns with encephalitis are not aggressively resuscitated because the child is incapable of thinking. The therapeutic attitude then recommended is expectant.

CONCLUSION

Neural tube defects and more specifically anencephaly remain common in our society and are responsible for significant morbidity and mortality.

Prevention remains the primary means to avoid the occurrence of anencephaly by means of pregnancy monitoring through the systematic introduction of folic acid in women of childbearing age and warning of the consumption of certain plants whose consequences can be fatal.

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