ISSN No:-2456-2165

Exceptional Fetal Malformation : Acardiac Headless Twin

Safaa Fajri
Gynecology and Obstetrics Department of the IBN ROCHD Hospital Universital Hospital of Casablanca MOROCCO

Ayoub AMGHAR, Houssain BOUFFETAL, Sakher MAHDAOUI, Naima SAMOUH
Gynecology and Obstetrics Department of the IBN ROCHD Hospital Universital Hospital of Casablanca MOROCCO

Abstract:- The acardiac twin is a rare complication of monochorionic twin pregnancy occurring at an incidence of one pour cent of monozygotic twins. We present a case report of an Acardius acephalic twin who was diagnosed at a pregnant woman admitted in our service.

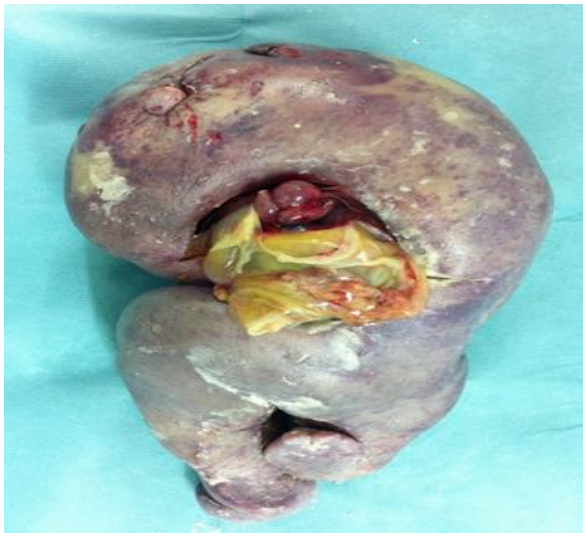
Keywords:- TRAP ; Twin Reverse Arterial Syndrome, Acardiac Acephal Twin, Monochorionic; Twin Pregnancie.

I. INTRODUCTION

Monochorial twin pregnancies characterized by presence of vascular connections between twins. These connections could be the origin of pathologies such as transfused / transfusor syndrome or the TRAP syndrome which is defined as the association of a headless acardiac twin with a healthy twin, a subject that we will study and then review the literature.

The acardiac twin is extremely rare, also called TRAP Sequence (Twin Reversed Arterial Perfusion) where, it is a result of vascular connections : arterial and arterial anastomoses or venous and venous anastomoses or finaly by arteriovenous connections.

Acardiac or no heart develops into as a parasite [1]. By obtaining the blood supply from the dropship twin of the donor.



Acardius is usually associated with acephaly and developmental failure of most thoracic organs and upper extremities [2].

II. CASE REPORT

Patient aged 31, fourth gesture, fourth pare. She had three living children born at term. She has no specific pathological history. Pregnancy was poorly followed up to 30 weeks of amenorrhea. Ultrasound showed a living fetus and a formation surrounded by a membrane. The appearance evoked the diagnosis of a monozygotic twin pregnancy with a normal living fetus and a second acardiac headless twin with a very abundant amniotic fluid (Figure). There was a biometric discrepancy between the two twins, diffuse subcutaneous edema and morphological abnormalities on the dead twin, with a monoclonal biamniotic placenta. The morphological examination of the stillborn fetus did not find any cephalic pole or cardiac structure (Figure). The biometry of the living fetus was in perfect agreement with the theoretical age at 30 weeks of amenorrhea, without any detectable morphological abnormality. The birth delivery, allowed the birth of a live girl weighing 2040 grams, APGAR 10/10 in the first minute. The examination of the living newborn showed no morphological abnormality. Extraction of the second twin showed a female fetus weighing 1920 grams and 34 cm in length, with no cephalic pole or thorax, limited to limbs and a small pelvis. On the anterior surface, an umbilical cord is seen unrelated to the placenta (Figure). The diaper suites were simple. The fetopathological examination of the malformed fetus confirms the diagnosis of acephalous acardiac twin. The two lower limbs each had a foot that looked backwards with syndactyly. The cord of the acardiac fetus contained a single umbilical artery and was inserted on that of the donor fetus. There was no evidence of cardiac structure or normal vena cava. On the other hand, there was an aorta with two branches at the cephalic and caudal extremities. Examination of the placenta, weighing 780 grams, showed a monoclonal biamniotic placenta. The placental insertion of the umbilical cord of the healthy twin was well found, but not that of the malformed twin. Examination of the membranes, cord and placenta showed no abnormality. The diagnosis of twin pregnancy with acardiac fetus was performed in the prenatal period at 30 weeks of amenorrhea. The healthy twin showed no clinical and biological abnormalities, and the 30-day follow-up showed a healthy newborn.

III. DISCUSSION

The Twin Reversed Arterial Perfusion (TRAP) sequence is from arteries to arteries anastomoses or veins to veins anastomoses in the twin placenta, leading to preferential perfusion of the lower body of the parasitic twin with low pressure hypoxemic blood from the normal donor twin.

The product of this pathological phenomena is a thing that has no heart but in life, as well as varying degrees of upper body regression in the recipient twin.

The burden of providing circulation for two fetuses can result in an enlarged heart, fetal hydrops, premature birth, or congestive failure.

Acardiac monsters have been descriped since 1533 [3]. Two-thirds of acardiac fetuses are acardiac acephalic, which is the most common variety, and they are predominantly female [4].

Mortality is 100% for acardiac twins. The mortality of the pump twin is around 50% and death can usually be due to heart failure and sometimes prematurity from polyhydramnios (5). Chromosomal abnormalities reported at 9% must be excluded from the management of the TRAP sequence. The importance of early diagnosis is clear both in determining treatment and in promptly terminating pregnancy, resulting in high mortality (2). One of the prognostic factors is the ratio of the weight of the acardiac twin to the weight of the donor twin (%).Premature delivery is observed in 90% of cases, polyhydramnios in 40% and congestive heart failure in 30% when this ratio is greater than 70% (5).

REFERENCES

[1]. Kim Tae Jin, Kim Chong Jai, Park Sung Hye et al. Holoacardius Hemisomus Acephalus: a case report. *Kor J. Path.* 1989; 23 : 487–489.
[2]. Nik Lah NAZ, Che Yaakob CA, Othman MS, et al. Twin Reverse arterial perfusion sequence. *Singapore Med J. Case Report* 2007; 48 : e335 - e337.
[3]. Dhall U, Kayalvizhi I, Magu S. Acardius Acephalus. Monster - A case report. *J Anat Soc India.* 2005; 54 : 26-28.
[4]. Sabyasachi Ray,Suvadip Basak,Prakash Ch. Ghosh Acardius Acephalus: «Une vie de neuf mois sans tête et sans cœur» J Obstet Gynaecol Inde. 2012 Dec; 62 (Suppl 1): 16–18.
[5]. Moore TR, Gale S, Benirschke K. Perinatal outcome of forty-nine pregnancies complicated by acardiac twinning. *Am J Obstet Gynecol.* 1990; 163 (3): 907–12.