

Thoracic-Omphalopagus Conjoined Twins: A Case Report and Review of the literature

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Abstract:- Conjoined twins represent a rare and serious complication of monozygotic twin pregnancies due to late cleavage at the embryonic disc stage. We report the fortuitous discovery of thoraco-omphalopagus conjoined twins at 8 months of pregnancy whose prognosis remains most often very reserved.

Keywords:- Monozygotic twin pregnancies; twins; conjoined thoracic-omphalopagus; conjoined twins.

I. INTRODUCTION

Conjoined Twins are a rare and complex form of newborn malformations, they are monozygotic twins fused to each other, always originating from a monoamniotic pregnancy. Currently, thanks to ultrasound, antenatal diagnosis can be made as early as the first trimester : Figure 3, so that most of these pregnancies are detected early, allowing better obstetrical and neonatal management [1].

II. PATIENT AND OBSERVATION

Mrs K.L, 21 years old, with no particular pathological history, nor any notion of consanguinity, G2P1, having a live child by caesarean section. Her current pregnancy was estimated at 8 months, not followed up, and she had not had any obstetrical ultrasound.

The clinical examination on admission found a conscious patient, with no apparent physical abnormalities,

hypertensive, normocardic, eupneic and apyretic with a labstix revealing the presence of 3 cross albumin

The obstetrical examination objectives an excessive uterine height compared to the gestational age at 34cm with a uterus full of fetus, positive BCF in both foci are perceived the first one at 100 beats/min and the second one at 92 beats/min, positive uterine contractions. At the vaginal touch, the cervix is dilated to 3cm, effaced, water pouch bulging and intact.

The ultrasound examination identified an evolving twin pregnancy, with biometrics of 31SA.

Given the association of twin pregnancy and scarred uterus, a caesarean section was decided. The diagnosis of conjoined thoracic-omphalopagus twins was an operative surprise. Extraction was difficult, Apgar at the 1st minute was 7 tenths remaining 7 tenths at the 5th minute, sex of the twins female, birth weight was 2030g

The twins (Figure 1) were examined by the pediatricians whose initial examination detected a cardiac ectopy with two tracheas and two esophagi, absence of other clinically detectable malformation. Due to the respiratory distress they developed, they were put under O2 masks, then transferred to the pediatric surgery department, after which they died at 2 days of life.



Fig. 1: Anterior view of postnatal image of conjoined twins

III. DISCUSSION

Definitions of Zygosity, chorionicity and amnionicity :
Figure 2

- Zygosity: number of initial embryos after fertilization
- Chorionicity : number of implantations in the uterine cavity

- Amnionicity : number of amniotic sacs in the gestational sac
- In a monozygotic pregnancy, the twins have an identical genetic heritage. In dizygotic pregnancy, it is different.
- In monochorionic pregnancy there is only one placenta. In bichorionic pregnancy there are two placentas.
- A monoamniotic pregnancy is necessarily monochorionic and monozygotic.

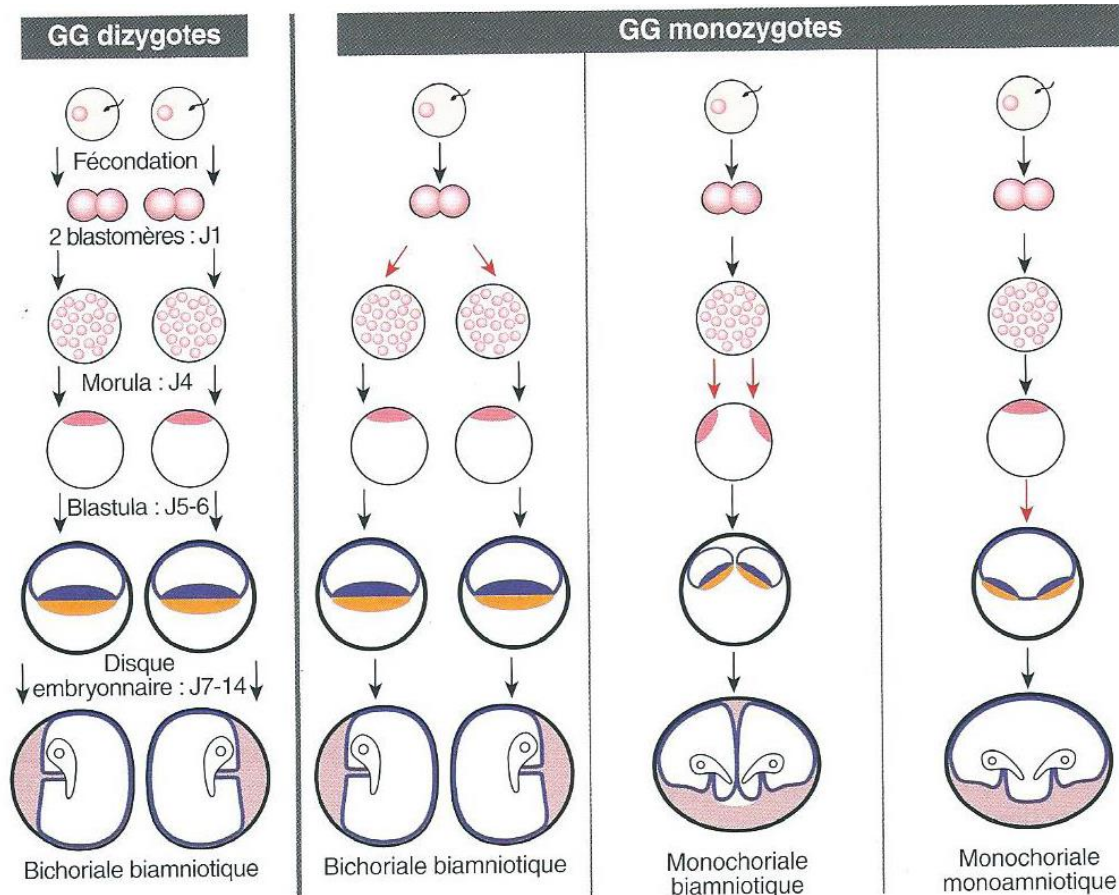


Fig. 2: Zygosity, chorionicity and amnionicity

Late cleavage of a monozygotic pregnancy beyond day 13 after fertilization is the cause of conjoined twins. It is a rare and serious complication of monozygotic pregnancies. The female sex is dominant in 70-75% of cases [2,3]. This is the case in our observation. However, race, heredity, parity, and consanguinity are not involved in the genesis process of conjoined twins [4]. Several classifications have been described based on the site of union of symmetrical conjoined twins according to the zone of fusion: craniopages, cephalopages, thoracopages, omphalopages, rachipages, pygopages, ischiopages and parapages [5,6]. Thoraco-omphalopages account for 70% of conjoined twins [7]. Many cases reported in the international literature are

diagnosed from the 9th week of amenorrhea. Early antenatal diagnosis is possible with ultrasound from 12-14 weeks [8-9], which was not the case in our observation where the discovery of conjoined twins was fortuitous. The management must be multidisciplinary and must take place in an adapted hospital structure involving a close collaboration between obstetricians, surgeons, anaesthetists and neonatologists. In case of conjoined twins with severe anomalies or sharing vital organs (complex fusion of the heart, complete craniopagus), separation surgery is no longer possible [10]. The prognosis of conjoined twins remains very guarded. For Romero, 39% of conjoined twins are stillborn and 34% die within hours of birth [11].

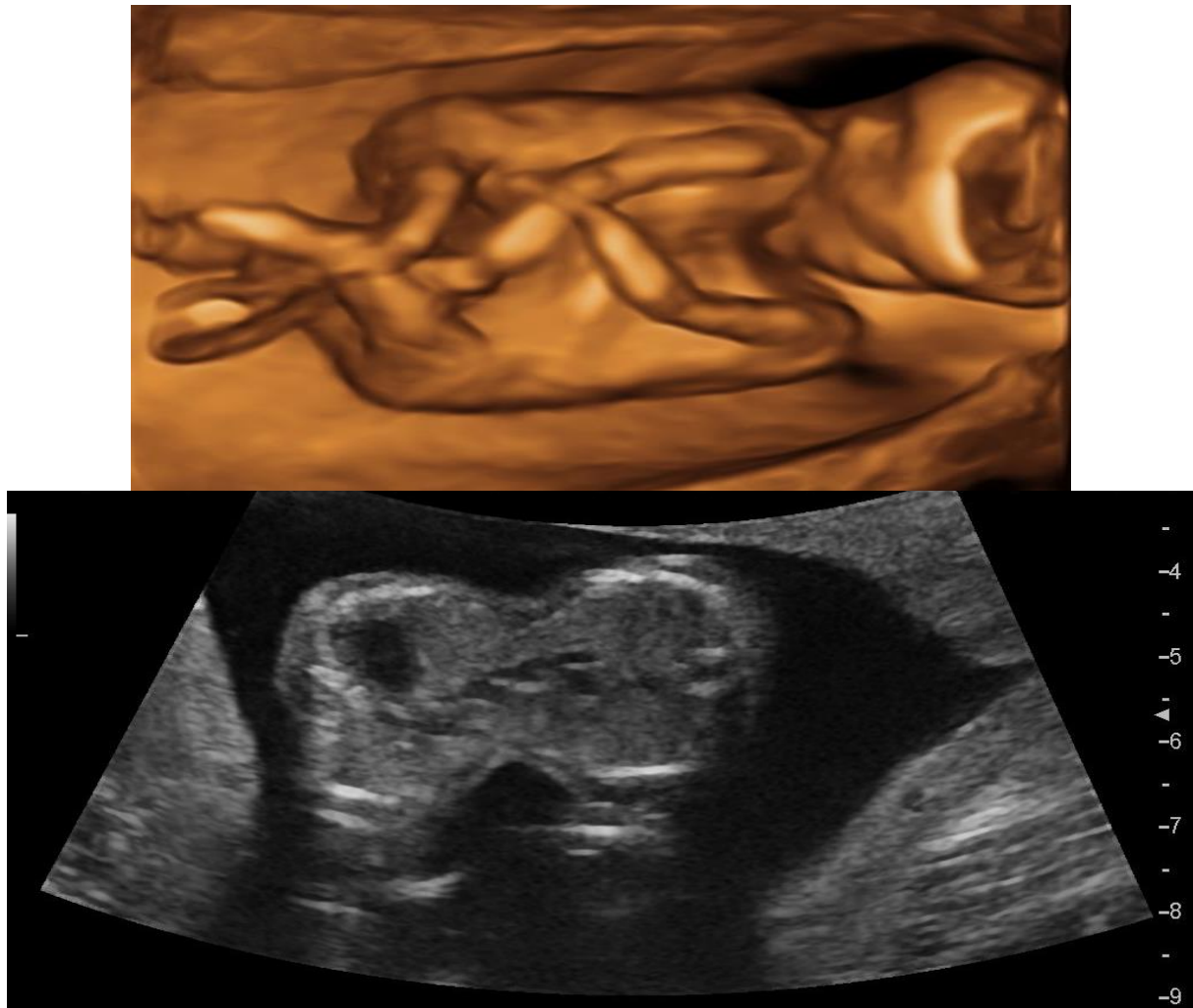


Fig. 3: ultrasound image of a conjoined twin

IV. CONCLUSION

Conjoined twins represent a rare and serious malformative anomaly of monozygotic twin pregnancies known since antiquity, the etiology of which remains poorly understood. The antenatal diagnosis is based on ultrasound, it is accessible from the first trimester, it allows to define the common anatomical structures, to search for associated anomalies, to organize the delivery in the best conditions and to program a multidisciplinary management

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