Midline cerebral congenital malformations: a summary of 3 years

Gharbia N[1,2], Mraihi F[1,2], Mchirgui O[1,2], Ben Ahmed H[1], Chelli D[1,2]

1. Department of gynecology and obstetrics “D”, Maternity and neonatology center of Tunis, Tunisia

2. Research laboratory LR18SP05

Royal College of Obstetricians & Gynaecologists

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Introduction :

Midline anomalies include a heterogeneous group of conditions, caused by abnormalities in the process of ventral induction after the end of primary neurulation, including agenesis of corpus callosum, holoprosencephaly, distortion of the interhemispheric fissure, arachnoid cysts, and vein of Galen aneurysmal malformation. This study aims to assess the effectiveness of obstetrical ultrasound in the diagnosis of these anomalies and determine their prognosis

Methods :

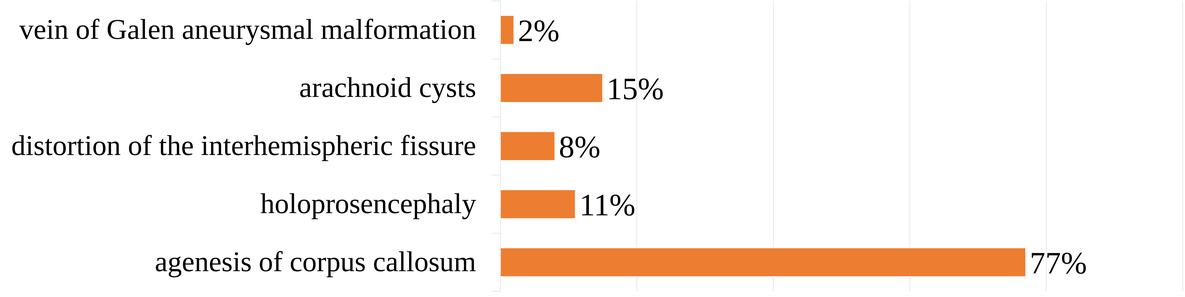
We conducted a single-center retrospective study over a period of three years (between January 2018 and January 2022) in the gynecology and obstetrics department "D" of the Tunis neonatology and maternity center (CMNT)

Results :

We included 45 fetus suffering different types of midline cerebral congenital malformations. The distribution of these anomalies is illustrated in the figure.

The mean age was 31±5 years with extremes ranging from 22 to 43 years. The average gestity and parity were 2.3 and 1.4 respectively. The mean term of diagnosis and delivery were 23 and 37 gestational weeks respectively. Consanguinity was found in 8 cases. The main diagnostic tool was morphological ultrasound (73%). Of the 45 studied cases, 40 underwent fetal MRI. Of these 40 MRI, 8 were pathological.

The midline cerebral anomalies



The majority of our women (62%) delivered by cesarean section. We reported eight neonatal deaths.

Discussion :

The most common techniques used in the process of diagnosis are the following: 1/Prenatal detection: prenatal ultrasound or prenatal ultrasound associated with MRI; 2/Assessment of the prenatal diagnosis in case of termination of pregnancy, abortion or stillbirths: postmortem autopsies; 3/Assessment of the diagnosis in neonates: postnatal MRI

The prenatal screening must start since the first semester for severe anomalies.

Conclusion :

Placenta accreta is a serious pathology that can be life-threatening for the mother. In this case, the delivery must be scheduled to reduce its morbidity.