

Single umbilical artery OR Four vessels umbilical cord AND Perinatal outcomes OR Fetal malformations OR Chromosomal abnormalities (Title/Abstract). Following the removal of duplicate entries, the authors proceeded with a preliminary review of titles and abstracts to evaluate their alignment with the review's objectives. This preliminary phase involved sifting through titles and abstracts, culminating in the selection of 21 pertinent articles. These chosen studies form the bedrock of a narrative review designed to dissect and elucidate the nuanced impacts that anomalies in umbilical cord vessel count exert on perinatal outcomes.

Results: The presence of a single umbilical artery (SUA) in prenatal diagnosis may signify potential risks for fetal anomalies and adverse pregnancy outcomes such as hemodynamic instability, ischemia, and increased likelihood of intrauterine growth restriction (IUGR). Despite SUA is associated with certain complications such as prolonged NICU stay and impaired fetal growth, the significance of these risks may vary depending on the individual case. Additionally, even the presence of supernumerary vessels may be associated with fetal malformations.

Conclusion: Serial fetal evaluations, including ultrasound examinations and Doppler studies, are recommended for detecting anomalies and monitoring fetal growth throughout pregnancy. Despite the generally benign nature of isolated SUA and supernumerary vessels, close monitoring and comprehensive prenatal care are essential to ensure optimal outcomes for both mother and baby. This involves vigilant prenatal screening, postnatal examinations, and appropriate management strategies tailored to each unique case.

Keywords: Umbilical cord, supernumerary vessels, single umbilical artery, chromosomal abnormalities, fetal malformations

PP-033 The Atrioventricular complete heart block diagnosed on the preoperative routine test for caesarian section

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Objective: The management of women presenting with complete heart block during pregnancy remains very challenging. Until now, there is not an established consensus for the most appropriate anaesthetic technique for caesarean section in women with complete atrioventricular block.

Methods: On our case, the atrioventricular complete heart block was diagnosed on the preoperative routine test for Caesarian Section due to cephalo-pelvic disproportion. The patient had no regular antenatal check ups at a local hospital. Her parents reported rare episodes of syncope during childhood and adolescence and one more episode two years before. During pregnancy she did not report any syncope episode except from being tired.

Results: For obstetric reasons caesarean section was performed successfully under spinal anaesthesia with continuous monitorization during intraoperative time without a pacemaker. Even though the patient reacted well during administration of atropine a temporary pacemaker was found to be in case we would need it. A healthy baby boy of 3350 gram was delivered. During postpartum period the patient did not have any complaints or syncope episodes. It was strongly recommended to her a regular follow up to cardiology department.

Conclusion: As suggested by our case, asymptomatic atrioventricular complete heart block in pregnancy can be managed successfully without pacemaker. However, careful monitoring, is necessary by the pregnancy heart team with a cardiologist, anaesthetist and obstetrician, with experience in the management of high risk pregnancies. Management of the risk for cardiovascular and obstetrical complications is difficult in pregnant women with complete heart block. Asymptomatic complete heart block in late pregnancy should be managed without pacemaker by the pregnancy heart team with a cardiologist, anaesthetist and obstetrician, with experience in the management of high risk pregnancies.

Keywords: Pregnancy, complete atrio ventricular heart block, temporary pacing, obstetrical complication

PP-034 The Contribution of molecular cytogenetics to diagnosis and genetic counseling of microdeletional syndromes in neonatal period

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Objective: Microdeletional syndromes are rare genetic pathologies, defined as the presence of loss of small chromosomal fragments (< 5 megabases), not visible on a standard karyotype. These microdeletions are

detectable only by the use of molecular cytogenetics, the most commonly used in medical practice being Fluorescent In Situ Hybridization FISH, which locates a specific sequence using a complementary probe of fluorescently-labeled DNA. In most cases, de novo deletions are involved; not transmitted by the parents but linked to a meiotic accident. The aim is to study the clinical and evolutionary features of microdeletional syndromes diagnosed in the neonatal period in the neonatology department of Farhat Hached hospital in Sousse, Tunisia.

Methods: A retrospective, descriptive study of all microdeletional syndromes diagnosed in the neonatology department of Sousse, over a 10-year period (January 2014-December 2023). Diagnostic orientation was essentially clinical, radiological and biological. The molecular genetic study was carried out in the Cytogenetics Department of the same hospital, based on karyotyping with FISH and molecular analysis using multiplex PCR.

Results: We collected 24 cases of microdeletional syndromes, equally distributed between males and females. Diagnosis was made antenatally in 3 cases. Prematurity was found in 7 cases. Signs suggesting a karyotype and molecular study were facial dysmorphia (15 cases), congenital heart disease (13 cases), unexplained hypotrophy (11 cases) and neurological distress (10 cases). The various microdeletional syndromes diagnosed by the FISH technique were, in order of frequency : DiGeorge syndrome (13 cases), Prader Willis syndrome (8 cases), Williams and Beuren syndrome (1 case), 1p36 syndrome (1 case) and cat's cry syndrome (1 case). The molecular alterations observed enabled us to establish a genotype/phenotype correlation between the genetic abnormality and the clinical presentation of our patients.

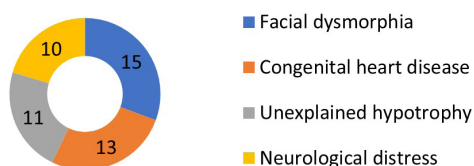


Fig 1. Clinical symptomatology

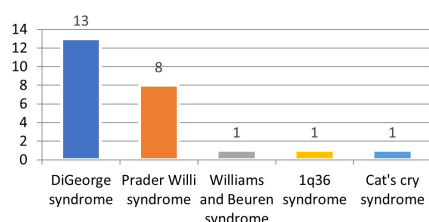


Fig 2. The microdeletional syndromes diagnosed

Conclusion: The contribution of molecular cytogenetics (FISH) is crucial for the investigation of microdeletional syndromes, with the aim of confirming the diagnosis, genetic counseling and management, which is usually multidisciplinary. At the end of this work, we have determined the optimal molecular diagnostic strategy for all microdeletional syndromes that can be diagnosed in the neonatal period, while focusing on the role of genetic counselling and prenatal diagnosis.

Keywords: Microdeletional syndrome, FISH, molecular cytogenetics, genetic counseling

PP-035 Hydrops fetalis: etiologies, management and outcome

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Objective: Hydrops fetalis (HF) is defined as excessive accumulation of amniotic fluid in the extravascular fetal compartment and at least two serous cavities. It manifests as subcutaneous edema, pleural or pericardial effusion and ascites. Etiologies are classified as immunological and non-immunological.

The objective of this study is to identify the clinical, etiological, therapeutic and evolutionary characteristics of HF in the neonatal period.

Methods: It is a descriptive and retrospective study, having included all newborns (NB) hospitalized in the neonatal intensive care unit of Farhat Hached Hospital of Sousse for management of HF, over a period of 7 years (January 2017- December 2023).

Results: The study included 20 NB. Sex ratio (F/M) = 2/3. Mean gestational age was 37 weeks' gestation (WG). HF was diagnosed during pregnancy in 17 women at a mean term of 28 WG. Hydramnios was associated in 12 cases and pulmonary hypoplasia in 6 cases. The pregnancy was complicated by gestational diabetes in 6 cases. All NB required resuscitation with intubation in the delivery room. Clinical signs were dominated by subcutaneous oedema in 18 cases, large ascites in 12 cases, pleural effusion in 10 cases, hepatosplenomegaly in 9 cases and pallor in 5 cases. Other signs were facial dysmorphia in 6 cases, heart murmur in 2 cases and tachycardia in 1 case. Cardiac origin was the predominant etiology, with one case of atrial flutter, one case of Ebstein's disease,