

Diagnosis of Congestive Heart Failure in the Fetus

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ABSTRACT

The fetus will be treated at the Perinatal Cardiology Specialty Center. Clinical evaluation of the fetus relies heavily on ultrasound, but other methods are being explored. Fetal heart rate monitoring using unfocused ultrasound can detect abnormal changes in heart rate. The lack of normal variability indicates damage to the central nervous system, usually as a result of ischemia.

Keywords: Cardiac hypertrophy; Hepatomegaly; Dyspnea; Tachycardia

DESCRIPTION

Heart disease is a common cause of morbidity and death during pregnancy. "The signs and symptoms of heart failure in pregnant women should be evaluated right away in order to get a thorough diagnosis and treatment." This is best accomplished through a multidisciplinary approach, in which both cardiologists and obstetricians should be involved to provide expert consultation and care for safe motherhood. Although congenital heart disease is common, once corrected, it becomes an unusual source of complications. These are more commonly caused by ventricular failure, pulmonary hypertension, and aortic arch disease.

Redistribution of fetal cardiac output

Based on the recent experience of various perinatal groups, advances can be expected in the next ten years, because the fetal cardiovascular system will generate a lot of information about the state of pregnancy diseases.

Newer technology has begun to examine the signal average electrocardiogram (ECG) for changes in STT waves that require further investigation. Fetal biophysical characteristics help detect changes in fetal health, especially heart failure due to an abnormal heart rate. The decision to deliver prematurely due to changes in the heart should be made in the context of overall prenatal and postnatal risks. This requires a coordinated team approach between the obstetrician, cardiologist, and neonatologist. According to the etiology of congestive heart

failure, the treatment of fetal cardiovascular problems can be divided into five most common groups:

- Abnormal peripheral impedance leading to redistribution of blood flow and growth disorders
- High output due to anemia or arteriovenous fistula
- Primary or secondary valve failure
- Heart failure caused by myocardial dysfunction and
- Tachycardia / bradycardia

Interventions aimed at increasing effective cardiac output are also aimed at prolonging pregnancy and preventing preterm birth and antenatal asphyxia. The cause of fetal congestive heart failure. This clinical state of the fetus can be characterized by at least five general signs obtained during the ultrasound examination. In specific pathological entities, perinatal fetal cardiologists pay more attention to certain factors that predict prognosis rather than others. Diagnosis of fetal congestive heart failure Redistribution of fetal cardiac output It has now been determined that the blood flow velocity of the umbilical artery and other peripheral vascular beds measured by Doppler echocardiography can be used as an indirect indicator of relative vascular impedance. Increased umbilical artery and descending aortic pulsatility index and decreased middle cerebral artery pulsatility index are non-invasive signs of blood flow redistribution (2). The most common cause of increased fetal vascular resistance is placental dysfunction secondary to vascular disease leading to asymmetric growth retardation. Once the normal growth pattern is disrupted (usually asymmetric, so the brain will continue to grow but the body will not), the fetus is at risk of organ damage due to hypoxia/ischemic injury. Due to the

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Received date: September 23, 2021; **Accepted date:** October 08, 2021; **Published date:** October 14, 2021

Citation: Sliwa K (2021) Diagnosis of Congestive Heart Failure in the Fetus. Cardiovasc Pharm Open Access. 10:243.

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reflex vasodilation of cerebral blood vessels, the flow to the brain is redistributed (called brain retention).

Puerperium and long-term treatment

Immediate care during the puerperium should avoid fluid overload. The expulsion of the placenta causes the uterus to contract and expels blood from this vascular organ to the systemic circulation. Women with severe valve stenosis and ventricular failure may receive intravenous diuretics during labor. Oxytocin used to promote active management of the third stage of labor may be vasoactive and should be considered before administration; therefore, bolus doses of oxytocin can cause vasodilation and reflex tachycardia, and any preparation containing ergonovine will cause vasoconstriction in the peripheral circulation. The problem of identifying and treating aggravating factors has been resolved, and breastfeeding issues should also be brought to the attention of women with perinatal cardiomyopathy.

CONCLUSION

Pregnancy represents a window of opportunity. During this period, women are primarily engaged in pregnancy care and provide opportunities to optimize the management of known medical comorbidities. During this period, newly diagnosed diseases can be discovered for the first time. Pregnancy is also an opportunity to ensure continuity of care and to plan for any future pregnancy. Once diagnosed with heart disease, open communication and a clear referral policy should be established after pregnancy. In addition, the risks of future pregnancies and the variety of available and appropriate contraceptive options must be considered. However, the most direct postpartum evaluation should be a cardiac evaluation a few months after delivery to make a diagnosis and assess recovery or deterioration of cardiac function after the end of pregnancy.