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Perspective

Peripartum Cardiomyopathy

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Abstract

Aim

Peripartum cardiomyopathy (PPCM), whose etiology is not known exactly, is one of the rare complications of pregnancy which can cause severe morbidity and mortality. Peripartum cardiomyopathy develops between the last month of pregnancy and the fifth postpartum month.

In the final months of pregnancy, women present with frequent shortness of breath and swelling in the feet. Since its symptoms closely resemble those within the normal spectrum of pregnancy, this often leads to a delayed diagnosis. Therefore, PPCM must be considered in the differential diagnosis of a patient presenting with the cases of shortness of breath, dyspnea on exertion, swelling in feet.

Introduction

Peripartum cardiomyopathy, which can happen in the last month of pregnancy or early postpartum, is a clinical case that can result in rare but serious complications. Presents with symptoms of heart failure. It was first described by. Demakis and colleagues [1] in 1971. Presents with symptoms of heart failure. It develops in the last prenatal month or within five months postpartum.

In this definition, it is defined as a heart failure that develops within the last month of your pregnancy or within five months after birth in the absence of an identifiable cause for the cardiac failure. In the following period, left ventricular dysfunction with ejaculation fraction reduction in echocardiography was added to the definiton [2]. Today, its etiology is not fully known. As well as spontaneous recovery, patients may also experience rapid clinical deterioration [3].

Discussion

The true incidence or prevalence peripartum cardiopathy is unknown. But in America, it is estimated to be seen in an average of 1000 to 1300 females per year [4]. Being of African descent, smoking, diabetes, hypertension, mothers over 30 years old, those who develop preeclampsia, multiple pregnancies have been associated with increased risk for developing PPCM [5]. In different studies, PPCM has been reported in 25-75% of young primigravidae [6,7].

Although researchers studying cases of familial peripartum cardiomyopathy that support genetic transmission of the disease have detected c.149A> G, p. Gln50Arg, MYH7, SCN5A, PSEN2 mutations, it should be supported by further studies [8]. Apart from that, it has been argued that relaxin hormone secreted primarily from the ovary could play a role in etiology by causing cardiac dilatation [9]. There isn't enough study to support it. Nowadays, especially with increasing free oxygen radicals, Cathepsin D and matrix metalloproteinase, 23 KD prolactin hormone produced in fibroblasts and released from the pituitary gland, converts it to 16 KD prolactin that increases cell death. Myocyte damage, ventricular dilatation and fibrosis development resulting from endothelial cell differentiation, causes peripartum cardiopathy [5]. Improvement after bromocriptine in rats with signal transducer and transcription factor-3 mutation supports this situation [10,11]. In African patients, bromocriptine was administered 2.5 mg twice a day for 2 weeks and once a day for 6 weeks led to increase in survival [11]. Similar to heart failure, treatment is done symptomatically. In very rare cases, heart transplantation may be necessary.

Conclusion

Although it is a rare disease of unknown cause which presents during pregnancy and after delivery, peripartum cardiomyopathy is a clinical condition that causes both maternal and fetal serious complications. The goal of treatment is to improve symptoms of heart failure. Although half of the patients recover, more work is needed for the etiology and progress of the disease.

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