An IVF-Twin Pregnancy Complicated with Cutaneous Polyarteritis Nodosa: A Case Report

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A twin pregnancy after the Assisted Reproductive Technology (ART) complicated with cutaneous polyarteritis nodosa (PAN) is presented.
A 28-years-old, nulliparous woman developed cutaneous PAN four years before the IVF-pregnancy. She had 2 years of marriage with no contraception method. After infertility work-up she was diagnosed as having unexplained infertility. Three consecutive intrauterine insemination cycles were unsuccessful. IVF with ICSI was performed and she achieved twin pregnancy. Blood pressure and biochemical analyses were normal during pregnancy. LMWH Clexane 0.4 1x1 (Enoxaparin 0.4 ml, Sanofi- Aventis) was given subcutaneously during the course of pregnancy. She underwent cesarean section because of preterm premature rupture of membranes at 33th week of gestation and delivered 2100 gr and 2240 gr male fetuses with normal Apgar scores.
Management of these patients must be individualised. Systematically diagnostic evaluation of pregnancy complicated with PAN help us to determine prognosis and management.

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Key Words: Polyarteritis nodosa, Pregnancy, Management, Prognosis

İntroduction

Vasculitis is a clinicopathologic process characterized by inflammation and necrosis of blood vessels. The most common types of vasculitis are Wegeners granulomatosus, polyarteritis nodosa and Churg-Strauss vasculitis. There is limited information on pregnancy outcome and medication use because most of the primary vasculities occur in older individuals and these diseases are more common in men.

Systemic polyarteritis nodosa (PAN) is a segmentary leucocytoclastic vasculitis that affects small- and medium-sized arteries. Although any organ may be involved, those principally affected are the kidney, liver, heart or the gastrointestinal tract. If left untreated, the disease may be fatal.[1] Systemic PAN is associated with HBV viral hepatitis in one-third of the cases. The charcteristic necrotizing angiitis is segmental in nature, affecting only a part of the vessel circumference. These weakened areas tend to form small aneurysms, which may rupture, and when located subcutaneously represent the nodules. Cutaneous variant of PAN is not associated with serious visceral involvement and presents a more favourable prognosis. However, the principal determinant was the degree of visceral involvement in cutaneous PAN.[2] Although not life threaatening, the disease process may affect the quality of life. Cutaneous PAN leads to large, open, ulcerative lesions of the lower extremities that can be refractory to therapy (Figure 1).

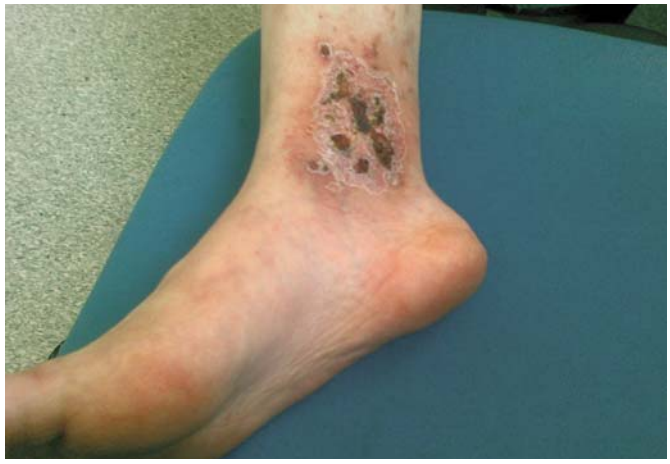

Figure 1 : Cutaneous lesions of the patient after pregnancy

Systemic PAN is a rare complication of pregnancy. There are only a few reports in the literature of pregnancies associated with this disease. Although its natural history, the effects of pregnancy, and the optimal management still remain unclear. The presence of multisystem involvement or renal disease and the presence of hypertension are indicators of poor prognosis.[3] We present a twin pregnancy after Assisted Reproductive Technology (ART) complicated with cutaneous PAN.

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Case Report

A 28-year-old, nulliparous woman developed cutaneous PAN four years before becoming pregnant. She had 2 years of marriage with no contraception method. After infertility work-up she was diagnosed as having unexplained infertility. Three consecutive intrauterine insemination cycles were unsuccessful. ART was performed and she achieved twin pregnancy. Blood pressure and biochemical analyses were normal during pregnancy. LMWH Clexane 0.4 1x1 (Enoxaparin 0.4 ml, Sanofi- Aventis) was given subcutaneously during the course of pregnancy. She underwent cesarean section because of preterm premature rupture of membranes at 33th week of gestation and delivered 2100 gr and 2240 gr male fetuses with normal Apgar scores. Blood pressure and biochemical analyses were also within normal limits after delivery. Figure 1 shows the cutanous lesion of the patient after pregnancy.

Discussion

Although systemic PAN is a potentially life-threatening form of vasculitis that can affect multiple organ systems, some patients have a medium vessel vasculitis that is restricted to skin. This form of vassculitis generally does not progress to the systemic form.[4] In pregnancy antiphospholipid antibody syndrome and infection may mimic the clinical picture of cutaneous PAN.[5]

Because systemic PAN is such a rare complication of pregnancy, no large series exist and it is unlikely that a controlled study will ever be performed. The majority of what is known about this disease comes from studies on nonpregnant patients. Relationship between pregnancy and disease is still unclear. So these data must be interpreted with caution. In literature pregnancy complicated with PAN has dramatically outcomes for fetus and mother. Some cases were in clinical remission at the onset of pregnancy. It shows that clinical manifestation varies for pregnancy complicated with PAN.[2]

Cutaneous form of PAN has a benign nature and good prognose for the patient. It is clear that correctly diagnosis of PAN on the time may improve outcome. Management of these patients must be individualised. Systematically diagnostic evaluation of pregnancy complicated with PAN help us to determine prognosis and management.

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