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AB0538

PREGNANCY OUTCOMES IN PATIENTS WITH TAKAYASU'S ARTERITIS: CASE SERIES

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Background: Takayasu's arteritis (TA) is most prevalent in women of childbearing age. Although its activity and risk of relapse are low during pregnancy, up to 40% of patients may have unfavorable obstetric outcomes and therefore it is important to know their clinical behavior.

Objectives: To describe the clinical features and obstetric outcomes of pregnant women with TA treated in a tertiary center.

Methods: Retrospective evaluation of medical records of 6 pregnancies in 6 women with TAs treated in a tertiary center in Medellín, Colombia between 2011-2018.

Results: Six women who were 17.5 (RI 9.25) years old at diagnosis and 24 (RI 8.25) years old at delivery, their disease duration were 5.5 (RI 10.5) years. Three patients had extensive aortic involvement classified as Numano type V, two as type IIB and one as type I. At delivery, three patients were active and required immunosuppressants, five had high blood pressure, one developed preeclampsia in the second trimester, one had severe mitral and tricuspid insufficiency with decreased ejection fraction of the left ventricle; two had aneurysms (left subclavian artery and ascending aorta). There were two fetal deaths, one due to intrauterine growth restriction and placental insufficiency and another of unknown etiology; both patients with disease activity, extensive aortic condition and arterial hypertension; no pregnancy resulted in abortion or preterm birth. Five deliveries were by caesarean section by maternal indication; there was no aortic dissection, aneurysmal rupture or cerebral hemorrhage (table).

Table. Patient's characteristics

Patient	Age at diag-	Age at delivery	Clinical features	Hata-Numano classification	Maternal outcome	Fetal outcome
1	6	17	HT, absence of left brachial and radial pulses, L carotid and subclavian murmurs, LVEF 47%	V	HT, C-section	Term delivery, SGA
2	22	26	HT, absence of L brachial and radial pulses, L carotid and subclavian murmurs, dyspnea, angina	V (plus pulmonary)	HT, vaginal birth	Placental insufficiency, IUGR, fetal death
3	14	38	HT, absence of L brachial and radial pulses, L carotid and subclavian murmurs, intermittent claudication, dyspnea, aortic regurgitation	IIB	HT, C-section	Term delivery, SGA
4	18	24	HT, malaise, absence of L brachial and radial pulses, intermittent claudication, arthralgia	IIB	Preeclampsia, C-section	Term delivery, SGA
5	17	22	Fever, malaise, intermittent claudication, arthralgia	I	C-section	Term delivery, SGA
6	21	24	HT, absence of bilateral femoral, popliteal, tibial and pedal pulses, headache, dizziness, amaurosis	V	HT, C-section	Fetal death

HT: hypertension; L: left; LVEF: left ventricular ejection fraction; C-section: cesarean section; SGA: small for gestational age; IUGR: intrauterine growth restriction

Conclusion: Pregnant women with active disease and extensive aortic condition presented unfavorable obstetric results, suggesting that an inadequate control of vasculitis may lead to greater maternal-fetal complications.

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AB0539

URINARY INFLAMMATORY CELL ANALYSIS REFLECTS THE RENAL HISTOPATHOLOGY IN ANTI-NEUTROPHIL CYTOPLASMIC ANTIBODY-ASSOCIATED VASCULITIS

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Background: The anti-neutrophil cytoplasmic autoantibody (ANCA)- associated vasculitides (AAVs) include microscopic polyangiitis (MPA), granulomatosis with polyangiitis (GPA), and eosinophilic granulomatosis with polyangiitis (EGPA). These small-vessel vasculitides are characterized by necrotizing inflammation of the vessel wall, particularly affecting small arteries, arterioles, and capillaries in systemic organs, and the kidney is one of the most frequently involved organs. Although kidney biopsy is necessary for deciding the therapeutic protocol, it is invasive and is sometimes hard to perform biopsy because of patient's severe general condition. We have already reported that T cells and macrophages appear in the urine of patients with glomerulonephritis, accompanied by active cellular infiltration such as cellular crescent formation and diffuse interstitial cell infiltration, but not in the urine of patients with glomerulonephritis without the active inflammatory lesions.

Objectives: In this study, we examined the utility of urinary inflammatory cell analysis for accessing kidney histopathological findings in AAVs.

Methods: This was a cross-sectional, retrospective chart study. Thirty-six AAV patients who had been referred to Niigata University Hospital between 2002 and 2018, and performed percutaneous kidney biopsy and urinary inflammatory cell analysis, were participated in this study. Thirty-two patients had MPA, and 4 had GPA. The kidney biopsy findings were classified into Berden's classification (a method to categorize glomerular lesions into four classes) and Neumann's classification (a method to evaluate glomerular, tubulo-interstitial, and vascular lesions by using activity indexes and chronicity indexes). Flow-cytometric analysis of urinary inflammatory cells was performed for each subject. Numbers of urinary T cells or macrophages were determined by multiplying the number of viable cells in the gated mononuclear cell region in each sample by the percentage of urinary CD3-positive or CD14-positive cells in the population, respectively. The correlations between the results of both methods and the numbers of urinary inflammatory cells were examined using Kruskal-Wallis test and Spearman's rank correlation coefficient. A p-value of <0.05 was taken to denote statistical significance.

Results: The numbers of urinary inflammatory cells showed a trend of increase in crescentic category without statistical significance in Berden's classification. Meanwhile, activity indexes had significant positive correlations with the number of urinary CD3-positive cells (r = 0.541, p = <0.001), CD14-positive cells (r = 0.354, p = 0.034), and total inflammatory cells (r = 0.449, p = 0.006) in Neumann's classification.

Conclusion: The numbers of urinary inflammatory cells reflect the active lesions of kidney histopathological findings, and these results indicate the usefulness of urinary inflammatory cell analysis for assessment of kidney biopsy findings in patients with AAVs.

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AB0540

CLINICAL ANALYSIS OF AORTA INVOLVEMENT IN PATIENTS OF ANCA-ASSOCIATED VASCULITIS

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