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Case Report : Post Transplant Erythrocytosis (PTE)

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Case Study: Introduction :

Post Transplant Erythrocytosis (PTE) is recognized as a complication of kidney transplantation and defined as persistently elevated hemoglobin > 17 g/dl and hematocrite > 51% in kidney transplant recipient. The incidence of PTE varies from 8-22%. It was more frequent in man than woman. It occurred 2 to 50 months after kidney transplantation, but most often developed in the first 24 months. Thromboembolic accidents were reported in 10-30 % of PTE patients, which may lead to death in 1-2% of them.

Case report :

A male, 30 years old, after 9 months kidney transplantation had elevated of hemoglobin (Hb) >17 g/dL and hematocrite (HCT) >51%. He was suffered from weakness without headache and look flushing in his face. The laboratory results showed Hb 17,88 g/dL; HCT 58,1% ; Blood Urea Nitrogen (BUN) 19,5 mg/dL; Creatinin serum (CS) 2,27 mg/dL. The kidney function was stable. The Ultrasonografie Doppler of transplant kidney revealed non artery stenosis renalis, and results of JAK2V617F mutation was negative. This patient routinely take tacrolimus, mycophenolate Mofetil, and methylprednisolone. After taking low dose Ramipril, done the phlebotomy procedure periodically (8 times) , and antiplatelet, the level of Hb and HCT was decreased (15,5 g/dL ; 49,5%) without thromboembolic event.

Discussion:

The mechanisms of PTE are unclear and multifactorial such as sustained increased of erythropoiten, renin-angiotensin system activation, endogenous androgens, and other growth factors. KDIGO and European Best Practice Guidelines recommend Angiotensin Converting Enzyme Inhibitor or Angiotensin Reseptor blocker as the first line treatment. The other treatment was phlebotomy, theophylline, and bilateral native kidney nephrectomy.

Conclusion :

Post Transplant Erythrocytosis is an important complication of kidney transplantation. The lower incidence of thromboembolic complication can prevent with early diagnosis and treatment.

Key words : Post Transplant Erythrocytosis (PTE), Kidney transplantation.