

Clopidogrel 유발성 혈전성 혈소판감소성 자반

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Clopidogrel Induced Thrombotic Thrombocytopenic Purpura

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Introduction: Thrombotic thrombocytopenic purpura (TTP) is characterized by hemolytic anemia, thrombocytopenia, neurologic symptom, fever, and renal failure. Conditions and factors associated with TTP include organ transplantation, infectious disease, and drugs. Most idiopathic cases of TTP are characterized by deficiency of ADAMTS13 metalloprotease activity.

Clopidogrel, anti-platelet agent, is widely used and plays an important role in the treatment of coronary artery disease recently. It used for prevention of cerebrovascular, cardiovascular, and peripheral vascular complications and flowing coronary artery stent procedures. But use of anti-platelet agents is associated with drug induced TTP.

Case: A 71 years old male patient presented with intermittent chest pain. He had a history of diabetes, hypertension and NSTEMI, and did PTCA but did not stent insertion. He took aspirin and cliostazol but did not take clopidogrel. He underwent PTCA and stent insertion at December, 6, 2012. He prescribed clopidogrel and discharged at December, 14, 2012. At December, 21, 2012, he visited outpatient clinic, and complained fever and leg redness for 3 days. His vital sign is 130/80 mmHg, respiratory rate is 20/min, and body temperature is 39.6°C. The laboratory tests showed a thrombocytopenia (WBC 85800/uL, Neutrophil 71400/uL, Platelet 125000/uL), elevated levels of liver function test (AST/ALT/ ALP/GGT - 110/77/623/164 IU/L) and elevated level of C-reactive protein (127.9 mg/dL) and the LDH was 930 IU/L. At December, 22, 2012, his mental status became drowsy, and platelet count falls to 57000/uL. We checked ADAMTS 13 activity, and found its activity is low. We diagnosed thrombotic thrombocytopenic purpura due to clopidogrel and underwent plasma exchange. We underwent plasma exchange for 4 days and continuous renal replacement therapy. But he expired due to multiorgan failure at hospital day 7.

Conclusion: Patient, who have vascular stenosis, usually takes clopidogrel. But clopidogrel can reduce ADAMTS 13 activity and occurs thrombotic thrombocytopenic purpura. Finally, if person who takes the clopidogrel, complains high fever and neurologic symptoms, we must doubt TTP and stop the clopidogrel and check ADAMTS 13's activity and undergo plasma exchange, as soon as possible.

Key Words: 클로피도그렐, 자반증, 혈장 교환술

Clopidogrel, TTP, Plasma exchange