

Transplantation of autologous peripheral blood stem cells improved diabetic peripheral neuropathy

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Objective Investigate to the effect of transplantation of autologous peripheral blood stem cells on diabetic peripheral neuropathy of the patients with diabetic lower limb arteriosclerosis obliterans. **Methods** 20 patients, rhG-CSF 600 µg/d for 5 days. On the fifth day, PBSC were collected. Sooner the PBSC were intramuscularly injected into the two limbs of patients. To do nerves and muscle electrophysiology examination of antinervation and fibula nerves before and three months after autologous peripheral blood stem cells. **Result** Nerves and muscle electrophysiology examination of 38 lower limbs of 20 patients showed that latent period of antinervation nervimotor was shortened, 4.91±1.42mS prior treatment, 4.56±1.47mS, post-treatment, $p<0.05$. Antinervation sensory nerves conduction velocity and wave amplitude significantly increased, 10.23±16.51m/s and 0.18±0.34mV prior treatment, 31.33±13.50 m/s and 0.78±0.93 mV post-treatment, both of them $p<0.05$. Latent period of fibula nervimotor was shortened too, 4.18±2.92mS prior treatment, 3.81±2.93mS post-treatment, $p<0.05$. Fibula nervimotor and sensory nerves conduction velocity significantly increased, 37.45±15.59m/s prior treatment, 40.69±15.96 m/s post-treatment, $p<0.05$ and 30.89±20.31m/s prior treatment, 43.23±17.36 m/s post-treatment, $p<0.05$. **Conclusion** Transplantation of autologous peripheral blood stem cells significantly improved the damage of diabetic peripheral neuropathy.

Keywords: lower limb peripheral neuropathy, improved, diabete, mobilization, transplantation

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