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# Neurovascular mechanism whereby tropical-herb Rattan Moxibustion treating diabetic peripheral neuropathy of blood stasis type

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**Objective:** To observe the neurovascular mechanism of Rattan Moxibustion in the treatment of blood stasis type diabetic peripheral neuropathy .

**Methods:** Seventy db/db mice were randomly divided into 7 groups including normal group, blood stasis model group,  $\alpha$ -lipoic acid group, fake Rattan Moxibustion group, and three subgroups of Rattan Moxibustion-15-min, 20-min, and 25-min group respectively. After 6 weeks' Rattan Moxibustion therapy, thermal pain threshold, blood glucose, endothelin, nitric oxide, nitric oxide synthase and malondialdehyde levels were detected, and pancreatic tissues morphology were observed under light microscopy. Heme oxygenase 1 (HO-1) proteins in dorsal root neuron were detected by Western blotting.

**Results:** Compared with normal group, blood stasis model group, fake Rattan Moxibustion group, thermal pain threshold of Rattan Moxibustion group was significantly improved ( $P < 0.05$ ); the blood glucose, endothelin, nitric oxide, nitric oxide synthase and malondialdehyde levels of the 20-min group were significantly ameliorated ( $P < 0.01$ ). In the Rattan Moxibustion groups, the chronic inflammation was found to be reduced according to hematoxylin-eosin staining results and Rattan Moxibustion groups HO-1 expression has been strengthened.

**Conclusions:** Rattan Moxibustion therapy can significantly improve peripheral nerve function in diabetic peripheral neuropathy of blood stasis type in mice, improve the blood stasis of pathological state; it can also reduce the chronic inflammation of the pancreas. The mechanism may ameliorate vasoactive and antioxidant factors, enhance HO-1 expression, ultimately improve microcirculation and enhance antioxidant capacity of the model mice.

**Keywords:** Tropical herb; Rattan Moxibustion; Diabetic peripheral neuropathy; Neurovascular

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