

## **Injection Effect of Botulinum Toxin A on Hallux Valgus Deformity and Pain**

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**Abstract :** Hallux Valgus is a kind of Toes aberration where the Metatarsophalangeal joint that connects the big toe to the foot, leading to the inner side and a protrusion on the inner surface of toe arise. This study aimed to determine the effect of botulinum toxin A injection to reduce pain and deviation angle of the thumb in Hallux Valgus and to increase outcomes of treatment as an adjuvant therapy. Randomized clinical study was performed on 18 patients at the Clinic of Physical Medicine and Rehabilitation, Isfahan University of Medical Sciences. In this study the Hallux valgus angle (HVA) between the metatarsals (IMA) and cartilage distal metatarsal angle (DMAA) and pain were assessed before and after injection. Average of Hallux Valgus angle before and after Botox injections were  $28/89 \pm 10/21$  and  $21/56 \pm 8/22$  degrees and the angle deviation in the 6 months after treatment was significantly improved ( $p < 0.001$ ). Injection of botulinum toxin A is a suitable and acceptable method to reform the skeleton deformities and also to reduce the pain in patients with Hallux valgus.

**Keywords :** metatarsal, hallux valgus, pain, botulinum toxin

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