Meige syndrome

- Abnormal brain networks in Meiges syndrome based on centrality analysis and functional network connectivity: a cross-sectional analysis
- Development and validation of predictive models for meige syndrome patients based on oxidative stress markers
- Progressive gray matter alterations in the Meige's syndrome and across sub-types
- Subthalamic Nucleus Oscillatory Characteristics in Meige, Cervical Dystonia and Generalized Dystonia
- CT-guided extracranial radiofrequency of multiple groups of cranial nerves for the treatment of compound Meige's syndrome
- Clinical outcomes and prognostic factors in patients with primary Meige syndrome undergoing subthalamic nucleus deep brain stimulation: a retrospective study of 65 cases
- Experience of the application of botulinum toxin type A as a treatment of facial hyperkinetic disorders in a Mexican ophthalmological center
- Putaminal-cortical circuits predict response of bilateral deep brain stimulation of the subthalamic nucleus in the primary Meige syndrome after 5 years

Meige syndrome, also known as Brueghel syndrome or idiopathic oromandibular dystonia, is a rare neurological disorder characterized by involuntary muscle contractions in the face, particularly around the eyes and mouth. These contractions can lead to symptoms such as blepharospasm (involuntary blinking), oromandibular dystonia (involuntary movements of the jaw and tongue), and facial grimacing.

The exact cause of Meige syndrome is not fully understood, but it is believed to involve dysfunction in the basal ganglia, a region of the brain involved in motor control. There may be a combination of genetic and environmental factors that contribute to the development of the condition.

Treatment

Treatment for Meige syndrome typically involves a combination of medications, such as muscle relaxants or botulinum toxin injections, to help alleviate symptoms. In some cases, deep brain stimulation (DBS) surgery may be considered for more severe cases that do not respond well to other treatments.

Prognosis

Living with Meige syndrome can be challenging, but with appropriate treatment and support from healthcare professionals, many individuals are able to manage their symptoms and maintain a good quality of life. Support groups and resources are also available to help individuals and their families cope with the challenges of living with Meige syndrome.

Observational cross-sectional studies

Liu et al. collected preoperative MRI T1-weighted images of 76 Meige syndrome patients who received DBS. According to the symptomatic improvement rates, all MS patients were divided into two groups: the high improvement group (HIG) and the low improvement group (LIG). They constructed group-level structural covariance networks in each group and compared the graph-based topological properties and interregional connections between groups. Subsequent functional annotation and correlation analyses were also conducted. The results indicated that HIG showed a higher clustering coefficient, longer characteristic path length, lower small-world index, and lower global efficiency compared with LIG. Different nodal betweennesses and degrees between groups were mainly identified in the precuneus, sensorimotor cortex, and subcortical nuclei, among which the gray matter volume of the left precentral gyrus and left thalamus were positively correlated with the symptomatic improvement rates. Moreover, HIG had enhanced interregional connections within the somatomotor network and between the somatomotor network and default-mode network relative to LIG. We concluded that the high and low DBS responders have notable differences in large-scale network architectures. Our study sheds light on the structural network underpinnings of varying DBS responses in MS patients [1].

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Liu B, Mao Z, Yan X, Yang H, Xu J, Feng Z, Zhang Y, Yu X. Structural network topologies are associated with deep brain stimulation outcomes in Meige syndrome. Neurotherapeutics. 2024 Apr 27:e00367. doi: 10.1016/j.neurot.2024.e00367. Epub ahead of print. PMID: 38679556.