

Botulinum Toxin Type A in Treatment of Meige's Syndrome

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Information and Method

1. Clinical Information

General Information: This study consisted of 12 patients, 4 were males and 8 were females. Age ranged from 46 – 67 years, with an average of 56.5 years. The medical state ranged from half year to 4 years.

Clinical Expression: In all the 12 patients, the disease is expressed as bilateral idiopathic closure of eyes, difficulty in opening of eyes, and progressively emphasized, the onset interval gradually shortened, and the time of closure of eyes extended. Duration of each time of onset varied from a few seconds to a few minutes. The state of illness gets more serious during emotional tension, tiredness and light stimulation. During onset, accompanying symptoms include dryness, swelling and unclear vision. There were 5 serious cases processed functional blindness, 3 cases processed opening and moving of mouth, elevation of eyebrow and forehead, 1 case accompanied tension of pharynx and difficulty in mouth opening. Symptoms in 4 cases disappear during sleeping, 2 cases used to process dramatically improvement during yawning. Body check: All the 12 cases had bilateral idiopathic closure, spasm, bilateral fissure. 4 cases accompanied by different degrees of mouth angle associated motion.

Accessory Examination: Cranial CT in 8 cases and cranial MRI in 2 cases were processed and no abnormality observed. Results of examination of cerebrospinal fluid by spinal puncture in 5 cases were normal.

2. Curative Method

Botulinum toxin type A for injection [(93) Drug Test (Lan) S-04] produced by Lanzhou Institute of Biological Products was used, 110U a vial, stored in low temperature fringe, diluted by 2.2ml saline to 5U/0.1ml when used. 1ml syringe and No. 4.5 needle head were used for injection. Injection points were selected according to different symptoms and signs. Generally, the injection points were located at upper and lower orbicular muscle of eyes near inner and outer canthus and 1cm of outer

angle of eyes, middle of eyebrows, nose bridge and mouth angle were usually selected. 5u was injected into each point, total dosage varied from 30 – 60U each time. 5 patients accepted reinjection for 2 – 3 times after recurrent of symptoms, the dosages and injection locations were the same as the first injection. In the first month, examinations were processed twice a week in the former 2 weeks and once a week in the latter 2 weeks. Afterwards examination was processed once a month.

Result

1. Standard of Curative Effects

Before treatment, the spasm was classified according to the standard introduced by Scott *et al*^[1]. There were 10 cases of level IV, 2 cases of level III. Degradation from level II to level IV after treatment was defined as obvious remission, from level IV to level III was defined as partial remission.

2. Result

In all the 12 cases, the symptoms started to be improved after 1 – 2 days of injection, and the effect become more obvious day by day. The duration of drug was 6 – 9 weeks, with an average of 7.8 weeks. There were 8 cases of complete remission (66.7%) and 4 cases of obvious remission (33.3%). 5 cases processed 2 – 3 times of reinjection after recurrence, the dosage and injection points were the same as the first injection, and the effects were the same.

3. Side Effect

Local side effects were slight and temporary. There were 4 cases of temporal eyelid swelling after injection, 3 cases of slightly incomplete eyelid closure, no systemic and allergic reaction occurred.

Discussion

Meige's Syndrome, also called Brueghel Syndrome, idiopathic blepharospasm, oromandibular dystonia, is most commonly occurred in middle aged and elderly, mainly expressed as blepharospasm combined with abnormal motion of mouth and face. Application of botulinum toxin type A injection in treating local dystonia is a new method in treatment of neurology diseases^[2]. Botulinum toxin type A is a neurotoxin produced by fusiform bacillus *Clostridium botulinum* bacteria under anaerobic environment, animal and clinical tests have proved that it is a safe and effective biological formulation. Its actions on local nerve muscle joint, inhibits release of acetylcholine by presynaptic membrane of motor nerve endings, thus leads to relaxation of spasmodic muscle and improvement of symptoms^[3,4].

We used local injection of botulinum toxin type A to treat 12 cases of Meige's Syndrome and obtained better results. The treatment has the following strength: fast onset and long duration of drug effects, process good effect. It is easy and simple to operate, local side effects are slight and temporal, mostly naturally recovered, reinjection can be performed without cease of effects. Thus botulinum toxin type A is a safe and effective biological formulation, and should be treated as the first choice in treatment of Meige's Syndrome, worth to be promoted in clinical application.

References

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