원 저

The clinical review of ptosis

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Abstract

Objectives : This paper aims to report the clinical effectiveness of acupuncture & herbal treatment on ptosis, which has no way to be treated but the operative method like a tarsectomy.

Methods : This study was carried out, from February 2003 to December 2003, to the twenty patients who were diagnosed as an acquired ptosis and treated by acupuncture and herbal treatment in the department of Acupuncture & Moxibustion, Daejon University Oriental Hospital. The selected acupoints were hasamhwang(下三黃) in normal side, BL 2(攢竹), BL 60(崑崙), BL 66(通谷), ST 41(解谿), ST 44(內庭), LI 4(合谷), LI 5(陽谿), guhu(球後), emi(魚尾) in abnormal side. The method of acupuncture insertion for each point was neutral(平補平瀉). The treatment frequency was once a day. And all patients were administered the Bojungikkitanggamibang(補中益氣湯加味方), which is known to be able to rise up the Gi of spleen(脾氣).

Result & Suggestion : The treatment result showed that excellent was 95%(19) and poor was 5%(1). Through this result, we can know that oriental medical treatment for ptosis is effective. But continuous study about oriental medical treatment for ptosis is needed hereafter.

Ⅰ. Introduction

Ptosis or blepharoptosis is the symptom that the upper eyelid falls to a position that is lower than normal. It can cover part or all of the pupil and interfere with vision[1-2]. Ptosis also includes a drooping eyelid resulted from abnormality of the innervation to the levator or the levator palpebrae superioris muscle itself[3].

Fox[4] and Beard[5] classified the type of ptosis into congenital and acquired according to the stage of onset, and Frueh[6] divided it into neurogenic, myogenic, aponeurotic and mechanical ptosis according to structural pathogenesis.

There are varied names that mean ptosis like anpye(眼廢)[7-9], hyumok(睢目)[9-10], chimpung(侵風)[9-10], sangpohasu(上胞下垂)[7, 9-10], posu(胞垂), gumpisubok(瞼皮垂覆) and angumsuwan(眼瞼垂緩)[11] in Oriental Medicine. The eyelid corresponds to the flesh wheel(肉輪) of five wheel(五輪-flesh[肉], blood[血], qi[氣], wind[風], water[水]) is attached to the spleen(脾), which is in charge of rising energy flow in the body. Therefore, tonifying the spleen is considered to be the first step to treatment of ptosis[12-14].

This paper aims to report the clinical effectiveness of acupuncture & herbal treatment on ptosis, which has no way to be treated but the operative method like a tarsectomy.

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Ⅱ. Patient and Method

1. Patient

This study was carried out, from February 2003 to December 2003, to the twenty patients who were diagnosed as an acquired ptosis and treated by acupuncture and herbal treatment in the department of Acupuncture & Moxibustion, Daejon University Oriental Hospital.

2. The method of study

The method of study was classified according to cause, age, sex, period of disease, period of treatment and result of treatment.

3. The method of treatment

1) Acupuncture treatment

One type of acupunctures(diameter 0.3mm, length 4.0cm, Dongbang Acupuncture, Korea) was used. All acupunctures were sterile, disposable(one time use only), and made of surgical-grade stainless steel. The selected acupoints were hasamhwang(下三黃) in normal side, BL 2(攢竹), BL 60(崑崙), BL 66(通谷), ST 41(解谿), ST 44(內庭), LI 4(合谷), LI 5(陽谿), guhu(球後), emi(魚尾) in abnormal side. The method of acupuncture insertion for each point was not used reinforcing(補) or reducing(瀉) method but neutral(平補平瀉). The depth of needling was selected according to the text book of acupuncture & moxibustion[15]. The treatment frequency was once a day.

2) Herbal treatment

All patients were administered the Bojungikkitanggamibang (補中益氣湯加味方), which is known to be able to rise up the Gi of spleen(脾氣).

3) The appraisal standard of treatment result

This evaluation of the criterion of treatment effect was used as below the sentence and statistical data was settled by percentage.

(1) Excellent: Normal status in the subjective symptom and physical examination.

(2) Good: Definitely improved status when compared with the first medical examination in the subjective symptom and physical examination.

(3) Fair: Slightly improved status when compared with the first medical examination in the subjective symptom and physical examination.

(4) Poor: Unchanged or aggravated status when compared with the first medical examination in the subjective symptom and physical examination.

Ⅲ. Treatment result

1. The distribution of age and sex

Table 1.

2. The distribution of cause

Tabel 2.

Table 1. The distribution of age and sex

Age/Sex	Male	Female	Total
under 10	1(5%)		1(5%)
from 20 to 30		2(10%)	2(10%)
from 31 to 40	3(15%)	3(15%)	6(30%)
from 41 to 50	4(20%)	3(15%)	7(35%)
from 51 to 60	3(15%)	1(5%)	4(20%)
Total	11(55%)	9(45%)	20(100%)

Table 2. The distribution of cause

Cause/Sex	Male	Female	Total
cerebral concussion	1(5%)		1(5%)
complication of DM		2(10%)	2(10%)
idiopathic	10(20%)	7(35%)	17(85%)
Total	11(55%)	9(45%)	20(100%)

3. The distribution of the period of disease

Table 3.

4. The distribution of the period of treatment by classified the period of disease

Table 4.

5. The distribution of the period of treatment by classified cause

Table 5.

6. The distribution of the treatment result by classified cause

Table 6.

Table 3. The distribution of the period of disease

period of disease/Sex	Male	Female	Total
less than 3 month	3(15%)	1(5%)	4(20%)
3month to 6month	7(35%)	7(35%)	14(70%)
more than 6month	1(5%)	1(5%)	2(10%)
Total	11(55%)	9(45%)	20(100%)

Table 4. The distribution of the period of treatment by classified the period of disease

period of treatment/period of disease	less than 3 month	3 month to 6 month	more than 6 month	Total
less than week 3		1(5%)		1(5%)
week 3 to week 6	4(20%)	13(65%)	1(5%)	18(90%)
more than week 6		1(5%)	1(5%)	
Total	4(20%)	14(70%)	2	20(100%)

Table 5. The distribution of the period of treatment by classified cause

period of treatment/cause	cerebral concussion	complication of DM	idiopathic	Total
less than week 3		1(5%)		1(5%)
week 3 to week 6	1(5%)	1(5%)	16(80%)	18(90%)
more than week 6			1(5%)	1(5%)
Total	1(5%)	2(10%)	17(85%)	2(100%)

Table 6. The distribution of the treatment result by classified cause

treatment result/cause	cerebral concussion	complication of DM	idiopathic	Total
Excellent	1(5%)	2(10%)	16(80%)	19(95%)
Good				
Fair				
Poor			1(5%)	1(5%)
Total				20(100%)

Ⅳ. Discussion

Eyelid is skin tissue that is covering an eye. It protects pupil and regulates the opening and closing of eye[12]. Ptosis or blepharoptosis is the symptom that the upper eyelid falls to a position that is lower than normal. It can cover part or all of the pupil and interfere with vision[1-2].

Ptosis is generally classified into congenital and acquired. It is known that congenital ptosis is mainly caused by the dysgenesis of the levator palpebrae superioris. Blepharophimosis, the abnormality of the innervation to the levator, congenital oculomotor palsy and birth trauma can also occur congenital ptosis[16-17]. Go[16] classified the congenital ptosis into 4 types, that is, the type with normal function of superior rectus muscle, the type with weakness of superior rectus muscle or superior rectus muscle and inferior oblique muscle, the type with the Marcus Gunn jaw-winking syndrome and the type with blepharophimosis. Fox[4] also classified into 4 type, that is, simple type, the type with a malformation of eyelid, the type with ophthalmoplegia and synkinetic ptosis type.

Aponeurotic ptosis is the most common cause of acquired ptosis. Senescence, involutional changes, dehiscence, or disinsertion of the levator aponeurosis are common. Chronic inflammation or intraocular surgery (eg, cataract surgery) can incite stretching of the levator aponeurosis and dehiscence from the anterior surface of the tarsal plate. Long-term use of contact lenses has also been implicated. Acquired neurogenic ptosis causes include Horner syndrome, third nerve palsy, or myasthenia gravis. Myogenic ptosis usually is congenital, but it can be associated with acquired disease processes. Acquired myogenic ptosis can be found in myasthenia gravis, chronic progressive external ophthalmoplegia, oculopharyngeal dystrophy, and myotonic dystrophy. Traumatic blepharoptosis can ensue after an eyelid laceration with transection of the upper eyelid elevators or disruption of the neural input. Mechanical ptosis can stem from the presence of eyelid neoplasms, eg, neurofibromas or hemangiomas or cicatrization secondary to inflammation or surgery[6].

According to Kim[18], congenital ptosis was more than acquired ptosis in the frequency of ptosis in Korea and the main cause of acquired ptosis was mechanical and traumatic ptosis.

The western medical treatment for ptosis is almost surgery except myasthenia gravis. The surgery for ptosis depends on the degree of levator function.

Patients with poor levator function (<10 mm of excursion) and moderate ptosis (<3 mm) will likely require suspension of the lid from the frontalis muscle. Patients with poor levator function will need a conjugation between lid and frontalis muscle for elevation of eyelid by using another materials like fascia lata. If a droopy upper eyelid interfere with vision, especially in one eye, it can result in amblyopia. In this case, early operation will be done. In the case that ptosis occurs in both eyes, if the patient has a habit that pull back one's head or has visual disturbance, early operation will also be done. If not, operation will be prolonged until 3-5 years old that can measure function of levator muscle[19), 20)]. The differential diagnosis of myasthenia gravis before surgery is very important because myasthenia gravis can be treated by drug[21)].

The importance of eyes is emphasized on Oriental medicine by saying in the Nei jing(內經)[22)] like this: "All the vital substance of five viscera & six bowels ascends to both eyes and become vital essence and irrigates eyes(五臟六腑之精氣, 皆上注於目而爲之精)". Che[23)] said "the manifestation of essence Gi of five viscera & six bowels(五臟六腑之精華) goes onto spleen, and via spleen, manifestation of essence Gi ascends to both eyes. Therefore, if spleen harmonizes with stomach, Gi(氣) can ascend and vital function(神氣) will be pure. It is important to preserving vital essence(精) and letting vital function(神氣) be tranquil in order to protect eyes because the essence of the kidney and the spirit of heart supervises the brilliance of eyeballs".

There are another names that mean ptosis in the Oriental medicine. They are such as sanggumhasu(上瞼下垂)[24-26)], hyumok(睢目)[9-10)], chimpung(侵風)[9-10)], anpye(眼廢)[7-9)] etc.

Wang[26)] said "The muscle of Foot Taeyang is related to the upper region of eye, and the muscle of Foot Yangmyung is related to the lower region of eye. If these muscles receive a stimulus of heat, opening eyes is impossible because the stimulus of heat loosens these muscles." Lee[9, 10, 27)] said "The cause of ptosis is born insufficient, deficient Gi of the spleen and deficiency of blood due to deficiency of the liver." Jang[7)]

classified the cause of ptosis into born insufficient, deficient Gi of the spleen, pathogenic wind invading to eyelids and trauma.

Generally speaking, congenital cause is underdevelopment due to congenital deficiency. And acquired cause is pathogenic wind invading to eyelids in case of both insufficiency of Yang of the spleen(脾陽虛) and disharmony of the collateral meridian(脈絡失調) and disharmony of Gi and blood(氣血不和) caused by trauma[28]. Therefore, the cause of ptosis is congenital deficiency(先天不足) and deficiency syndrome(虛證).

The result carrying out acupuncture & herbal treatment on patients with ptosis, which has no way to be treated but the operative method like a tarsectomy, is following:

The distribution of age showed that 41-50 was 38%(7), 31-40 was 30%(6), 51-60 was 20%(4), 20-30 was 10%(2), and under 10 was 5%(1)(Table 1). The distribution of sex showed that male was 55%(11) and female was 45%(9)(Table 1). The distribution of cause showed that idiopathy was 85%(17), complication of DM was 10%(2) and cerebral concussion was 5%(1)(Table 2). The distribution of the period of disease showed that 3months to 6months was 70%(14), less than 3 months was 20%(4) and more than 6 months was 10%(2)(Table 3). The distribution of the period of treatment by classified the period of disease showed that week 3 to week 6 took 90%(18)(Table 4). The distribution of the period of treatment by classified cause also showed that week 3 to week 6 took 90%(18)(Table 5). The distribution of the treatment result by classified cause showed that excellent was 95%(19) and poor was 5%(1)(Table 6).

This result of treatment showed that oriental medical treatment for ptosis is effective. But continuous study about oriental medical treatment for ptosis is needed hereafter.

Ⅴ. Conclusion

1. The distribution of age and sex show that the age of 41-50 gets 8 cases(38%), 31-40 gets 7 cases(33%). The male gets 11 cases(52%), the female gets 10 cases(48%).

2. The distribution of causes shows that idiopathy gets 17 cases(85%), complication of DM gets 2 cases(10%) and cerebral concussion gets 1 case(5%).

3. The distribution of the period of disease shows that the '3 months to 6 months' gets 14 cases(70%), 'less than 3 months' gets 4 cases(20%) and 'more than 6 months' gets 2 cases(10%).

4. The distribution of the period of treatment shows that, 'less than 3 weeks' gets 1 case at '3-6 months', '3-6 weeks' gets 4 cases at 'less than 3 months' and 13 cases at '2-6 months', 'more than 6 weeks' gets 1 case at 'more than 6 months'. Among them, '3-6 weeks' gets 18 cases(90%).

5. The period of treament by classified cause shows that there are one case's 'compication of DM' at less than 3 weeks, one case's 'cerebral concussion' and one case's 'complication of DM' and sixteen cases 'idiopathy' at 3-6 weeks and one case's 'idiopathy' at more than 6 weeks. Therefore, 18 cases are shown at 3-6 weeks.

6. The distribution of the treatment result by classified cause showed that excellent was 95%(19) and poor was 5%(1).

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