

Clinical Practice Guideline of Acupuncture for Bell's Palsy

Xi Wu^a, Ying Li^a, Yi-Hui Zhu^a, Hui Zheng^a, Qin Chen^b, Xue-Zhi Li^c, Ling Luo^a, Fang Zeng^a, Wen-Jing Huang^a, Ling Zhao^a, Xiao-Dong Wu^d, Hong Zhao^e, Ming-Jie Zi^f, Xu Guo^g, Si-Yuan Zhou^a, Hui-Juan Tan^a and Fan-Rong Liang^{a*}

^aSchool of Acupuncture & Moxibustion and Tuina, Chengdu University of TCM, No.37 Shierqiao Road, Jin Niu District, 610075, Chengdu, Sichuan Province, P.R. China

^bThe Third Affiliated Hospital of Zhejiang Chinese Medical University, No.219 Moganshan Road, Moganshan Road Hospital District, 310005, Hangzhou, Zhejiang Province, P.R. China

^cDepartment of Traditional Chinese Medicine, Chongqing Medical University, No.1 Yixueyuan Road, Yuzhong District, 400016, Chongqing, P.R. China

^dInstitute of Acupuncture and Moxibustion, China Academy of Chinese Medical Sciences, No.16 Dongzhimen Inner South Alley, Chao Yang District, 100700, Beijing, P.R. China

^eAcupuncture and Moxibustion Hospital, China Academy of Chinese Medical Sciences, No.16 Dongzhimen Inner South Alley, Chao Yang District, 100700, Beijing, P.R. China

^fXiyuan Hospital, China Academy of Chinese Medical Sciences, No.1 Xiyuan playground, Haidian District, 100091, Beijing, P.R. China

^gBeijing Anzhen Hospital, Capital Medical University, No.2 Anzhen Road, Chao Yang District, 100029, Beijing, P.R. China

*Correspondence: Fan-Rong Liang, Chengdu University of TCM, No.37 Shierqiao Road, Jin Niu District, 610075, Chengdu, Sichuan Province, P.R. China; E-mail: acu973@126.com

ABSTRACT

Background: Acupuncture is common used for Bell's palsy in clinic, however, recent systematic reviews all shows that there is no sufficient evidence to support the effectiveness of acupuncture for Bell's palsy because of the poor quality and heterogeneity. It's urgently necessary to develop a guideline of acupuncture for Bell's palsy based on principles of evidence-based medicine to optimize acupuncture treating, standardize outcomes evaluating and to improve the quality of acupuncture for patients with Bell's palsy under general circumstances.

Objective: To improve the accuracy of diagnosing and managing Bell's palsy, optimize acupuncture treating and outcomes evaluating for patients with Bell's palsy, and to improve the quality of acupuncture for patients with Bell's palsy in most instances.

Methods: This guideline was developed using an explicit and transparent a priori protocol based on supporting evidences and experts' consensus. The guideline developing Group followed the protocol through all stages of the development process: proposed clinical questions, searched clinical evidences, evaluated levels of evidences, developed recommendations, peer reviewed and consummated, and finally formed the draft of this guideline.

Results: (1)The guideline development group made a Grade A recommendation that ①With a course of Bell's palsy within 3 months, the patients with mild facial palsy may be treated with any one of acupuncture, western drugs, or acupuncture combing with western drugs, whereas the patients with severe facial palsy may be treated with acupuncture or acupuncture combing with western drugs. With a course of more than 3 months, acupuncture is more suitable. ②Acupuncture should be applied as early as possible for Bell's palsy. ③The principle of selecting acupoints for Bell's palsy is to select local points, points of corresponding meridians and those according to differentiation. Generally, the points of yangming meridians are the main ones. ④The various methods of acupuncture and moxibustion are adopted for Bell's palsy, including filiform needling, moxibustion, electro-acupuncture, etc. Two or more methods are usually used together in clinical practice. (2) The development group formed expert consensus on the principles of acupuncture treatment for Bell' palsy. Bell's palsy is suitably treated according to the stages, differentiation and symptoms.

Key words: Staging of Bell's palsy, Acupuncture diagnosis and treatment, Evidence-based clinical practical guideline

Abbreviations: EBM: evidence-based medicine; GDG: The guideline developing Group; AHCP: US Department of Health Care and Policy Research; SIGN: Scottish Intercollegiate Guidelines Working network; CT: computed tomography; MRI: magnetic resonance imaging

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Disclaimer: The purpose of this guideline is to provide a clinical practical strategy which matches most patients under general circumstances. The target groups of this guideline are acupuncturists, teachers and students of medical schools, and researchers of acupuncture science in Western Pacific Region. The target environments of using this guideline are in-patient or out-patient sections of acupuncture departments of hospitals for all levels, communities with specialized acupuncturists, hospitals, universities or colleges with acupuncture education and acupuncture-related researching or assessing institutions. This guideline is not demand and do not purport to be a legal standard of care. Adherence to it will not ensure successful patient outcomes in every situation. Therefore, the acupuncturist for a particular patient should be fully understood the intervention recommendation of the disease and fully consider the patient's specific condition and wishes, according to their knowledge and experience to develop a reasonable intervention program. **Sponsor:** Traditional Medicine Office, Western Pacific Region, World Health Organization

INTRODUCTION

Bell's palsy (ICD10; G51.0)^[1], described by Charles Bell in 1821, is also called idiopathic peripheral facial palsy. According to the descriptions and definition given by National Institute of Neurological Disorders and Stroke^[2], American Academy of Otolaryngology-Head and Neck Surgery^[3], Cecil Medicine^[4], Bell's palsy refers to the non-specific inflammatory edema of facial nerve in stylomastoid foramen, which leads to peripheral facial palsy. The incidence of Bell's palsy ranges from 11.5 to 53.3 per 100,000 person years in different populations^[5-9] and 30% of them have a poor recovery^[10-12].

Treating Bell's palsy with acupuncture can be dated back to ancient times, when it falls into the category of Wo Bi and Kou Yan Wo Xie in TCM, which is manifested as deviation of eyes and mouth and inability to frown^[13-15]. Nowadays, acupuncture is still widely used for Bell's palsy all over the world with an effective rate over 90%^[16-20], equal with western medicine and no side effects, moreover, for severe Bell's palsy acupuncture or acupuncture combining with western medicine can improve facial paralysis cure rate, shorten recovery time, and reduce the incidence of complications^[21-24]. However, recent systematic reviews all show that there is no sufficient evidence to support the effectiveness of acupuncture for Bell's palsy because of the poor quality and heterogeneity^[25-27]. As a consequence, acupuncture isn't recommended in the clinical guideline of Bell's palsy issued by American Academy of Otolaryngology-Head and Neck Surgery in 2013^[28].

The low quality and high heterogeneity of existed trials is due to the lack of guidance for standard trial design and acupuncture handling. So it's urgently necessary to develop a guideline of acupuncture for Bell's palsy based on principles of evidence-based medicine (EBM). The primary purpose of this guideline is to improve the accuracy of diagnosing and managing Bell's palsy, standardize acupuncture treating and outcomes evaluating for patients with Bell's palsy, and to improve the quality of acupuncture for patients with Bell's palsy in most instances.

METHODOLOGY

1. Establishment of GDG

This guideline was developed using an explicit and transparent a priori protocol based on supporting evidence and experts' consensus. The guideline developing Group (GDG) followed the protocol through all stages of the development process. The GDG consisted of 17 members including specialists from acupuncture, neurology, epidemiology, evidence-based medicine, medical statistics, medical informatics, nursing, and patients' representative.

2. Produce of clinical questions

The GDG presented clinical questions such as suitable crowd, interventions, evaluating outcomes, et al. that this guideline would answer by the form of questionnaires to domestic

doctors and patients. And then these clinical questions would be further screened through a final discussion by the GDG.

3. Search of clinical evidences

According to the clinical questions, the searching strategies for modern clinical research published in English, Chinese, Japanese and Korean were performed including the selection of subject terms and keywords, retrieving time span and used resources. At the same time, related literatures of ancient classics and specialists' experiences in Chinese were searched. Finally, the manual search of related data was replenished to guarantee all the underlying evidences and sources related to the guideline's topic were included.

4. Evaluation of levels of evidences

After much deliberation and discussion, the GDG decided to use the catalogues of ancient classics and specialists' experiences listed by experts of Chinese medical literature as the quality-evaluating standard for evidence of related literatures of ancient classics and specialists' experiences. For evidence of modern clinical research, in accordance with the US Department of Health Care and Policy Research (AHCPR) standards and Scottish Intercollegiate Guidelines Working network (SIGN) standards, the quality of the evidence were rated. The level of modern clinical research is display in table 1.

5. Produce of recommendation grade

An effective acupuncture intervening program was developed through long-term clinical practices and this process included several stages as the discovering of effective acupoints or stimulating methods, forming an optimized regimen, and proved by clinical observation and trials. Therefore, the clinical evidence body of an effective acupuncture intervening program should enhance written records in ancient classics or experts' experiences, observational clinical studies, and experimental clinical research. Under this principle the grade of recommendation was finally set up. The grade of recommendations is display in table 2.

6. Peer review and consultation of experts

The experts' opinions and suggestions for the acupuncture intervention programs in this guideline were obtained through three rounds of national-wide experts consulting to prestigious TCM and acupuncture masters. The writing team

Table 1. Level of modern clinical research

Level of evidence	Type of evidences
I	I ^a Systematic Review of RCTs I ^b RCTs (Graded by a modified Jadad scale as levels of A, B, C and identified as Ib ^A , Ib ^B , Ib ^C)
II	Cohort studies and Case-Control studies
III	Case Series
IV	Case Reports and Expert opinion

Table 2. Grade of recommendations

Grade of Recommendations	Type of recommendations
Grade A	Match one of these two: 1. Evidence of I ^A level 2. One or more evidences of Ib ^A level + a series of II, III level of evidences, or evidence of ancient classics, or experts' experiences
Grade B	Match one of these three: 1. Evidence of Ib ^A level 2. One or more evidences of Ib ^B level + a series of II, III level of evidences, or evidence of ancient classics, or experts' experiences 3. II level of evidences + III level of evidences, or evidence of ancient classics, or experts' experiences
Grade C	Match one of these four: 1. Evidence of Ib ^B level 2. Evidences of level II or III 3. Evidences of ancient classics 4. Evidences of experts' experiences
GPP	Experts' consensus

of this guideline modified and consummated this guideline according to the feedbacks of the assessments and suggestions, and formed the final draft of this guideline.

DIAGNOSTIC CRITERION

1. Diagnostic criteria

There isn't a unified diagnostic criterion for Bell's palsy at present. A diagnosis of Bell's palsy is often based on the history, symptoms and signs, and by ruling out other disorders which can cause peripheral facial palsy^[2–4].

- Symptoms and Signs
Generally, Bell's palsy affects only one side of the face, however, in rare cases, it can affect both sides. The patient can feel dryness of eye or mouth, or excessive tearing in the eye, hyperacusis, impairment of taste in the anterior 2/3 of the tongue, and food debris stagnating in the mouth on the affected side. Slight or obvious weakness or paralysis of expression muscles could be noticed. At rest: decreased or absence of wrinkles, asymmetry with eyebrow, decreased or absence of nasal labial fold, drooping eyelid and corner of the mouth, drooling. Motion: slight to no movement of forehead and eyebrow, ability to close eye with maximal effort and obvious asymmetry, or inability to close eye completely with maximal effort, slight to ability to move corners of mouth with maximal effort and obvious asymmetry. Reflection: loss of corneal reflex.
- Excluding other possibilities that may cause peripheral facial palsy
Laboratory test of blood serum could identify peripheral facial palsy caused by otitis media, mastoiditis, labyrinthitis, parotitis, parotid tumor, or Lyme disease. Examination of cerebrospinal fluid could exclude Guillain-Barre Syndrome, and computed tomography (CT) or magnetic resonance imaging (MRI) could exclude

infection, tumor, bone fracture, or other potential causes for facial nerve involvement.

2. Differentiation Standard

In accordance with *Efficacy Assessment of Integrated Traditional Chinese and Western Medicine on Peripheral Facial Palsy (Draft)*^[29], the research evidence^[30, 31] and expert consensus, the recommendation in the following takes the differentiation standard of disease as the principle for treatment.

- Pattern of invasion of wind-cold
Sudden deviation of mouth and eye, stiffness of facial muscles, lacrimation, frequent blinking, aversion to wind, absence of sweating, mastoid pain, a history of catching cold, slightly red tongue, thin white coating, floating and tight pulse, or floating and retarded pulse.
- Pattern of attack of wind-heat
Sudden deviation of mouth and eye, paralyzed facial muscles, tenderness in mastoid region, sore throat, tinnitus, loss of sense of taste, red tongue, thin and yellow coating, floating and slippery pulse, or floating and rapid pulse.
- Pattern of phlegm and blood stasis obstructing collaterals
Prolonged deviation of mouth and eye, incomplete closure of eyelid with lacrimation, stiffness and twitching of facial muscles, deviation of mouth to the affected side, red tongue or dark red tongue, thin and white coating, string-taut and fine pulse.
- Pattern of qi deficiency with blood stasis
Prolonged deviation of mouth and eye, incomplete closure of eyelid, puffiness and weakness of facial muscles, food retention and water leaking in the affected side, slightly red tongue, thin and white coating, deep, fine and weak pulse.
- Pattern of Yin deficiency producing wind
Prolonged deviation of mouth and eye, facial spasm, accompanied with irritability, palpitation and insomnia, red tongue, thin coating, string-taut and fine pulse.

3. Staging of disease

According to different pathological conditions^[2–4] and literature evidence, the GDG divides the stage of Bell's palsy for acupuncture as acute stage, within one week; subacute stage, within three weeks; recovering stage, three weeks to six months; and sequelae stage, over six months.

INTERVENTION

1. Principles of acupuncture and moxibustion for Bell's Palsy

1.1. Principles of Selecting therapies

With a course of Bell's palsy within 3 months, the patients with mild facial palsy may be treated with acupuncture and moxibustion, western drugs, or combined acupuncture and moxibustion with western drugs, whereas the patients with severe facial palsy may be treated with acupuncture and moxibustion or combined acupuncture and moxibustion with western drugs. With a course of more than 3 months,

acupuncture and moxibustion treatment is more suitable. (Recommendation: Grade A, Evidence: Ib, II, GPP).

1.2. Intervention time of acupuncture treatment

Acupuncture should be applied as early as possible for Bell's palsy. Acupuncture can control the progress of the disease, quicken the recovery, and improve the relief of pain and lacrimation. (Recommendation: Grade A, Evidence: Ib, II, evidence of experts' experiences).

1.3. Principles of acupuncture treatment

Bell's palsy is suitably treated according to the stages, differentiation and symptoms. In acute and subacute stage, the syndromes involved are mostly invasion of wind-cold or wind-heat. In convalescence and sequela stage phlegm and blood stasis obstructing collaterals, qi deficiency with blood stasis, and yin deficiency producing wind are the main syndromes. (Recommendation: GPP)

1.4. Principles of Selecting acupoints

The principle of selecting acupoints for Bell's palsy is to select local points, points of corresponding meridians and those according to syndrome differentiation. Generally, the points of yangming meridians are the main ones. (Recommendation: Grade A, Evidence: Ib, II, evidence of ancient classics and experts' experiences).

1.5. Principles of Selecting therapies

The various methods of acupuncture and moxibustion are adopted for Bell's palsy, including filiform needling, moxibustion, electro-acupuncture, etc. Two or more methods are usually used together in clinical practice. (Recommendation: Grade A, Evidence: Ib, II, evidence of ancient classics and experts' experiences)

2. Main outcome index

2.1. Main outcome index

House-Brackman scale is recommended to be used for assessing symptoms and physical signs. There are three Ib^A studies^[22, 23, 32] and three Ib^B studies^[24, 33, 34] that adopted this scale as the main outcome index and the results showed a positive correlation of multiple clinical outcome assessments, so This guideline recommend it as an index which can present the true effect of acupuncture therapy. The guideline does not recommend any self-made indices.

2.2. Evaluation of life quality

This guideline recommends a simple and internationally used scale-WHOQOL-BREF, which is made by WHO to evaluate quality of life. The scale is reliable, valid and sensitive, and reaches true effect despite culture differences.

2.3. Evaluation of Safety

Few clinical studies recorded the adverse events of using acupuncture for Bell's palsy. A study with 480 participants reported 5 adverse events due to acupuncture syncope; one of them was because of nervous, two were due to hot weather,

and two were owing to unsuitable posture. They all relieved after suitable management, no other adverse event was observed^[35]. A study reported a participant with hypertension coughed in the process of maintaining needles, but it stopped two minutes after the needles were removed^[36].

2.4. Evaluation of health economics

There was no report on evaluation of health economics about using acupuncture to treat Bell's palsy, which is suggested in the future research.

3. Cautions

3.1. Penetrating needling

Depth and direction should be paid attention to for penetrating needling. Lift and thrust in large amplitude is not allowed in order to prevent hematoma and harm^[37, 38].

3.2. Electro-acupuncture

Avoid increasing electrical current suddenly, because it will strongly contract facial muscles and make the patients nervous, leading to stuck needle, acupuncture syncope, broken needle, etc. Intensity of electro-acupuncture should be endurable, otherwise, it will cause facial spasm^[37].

3.3. Infrared radiation

Infrared heating can be applied on the affect side of face with a distance of 30 to 40cm, with the power of 250–300 W, for less than 15 minutes. Ask the patient to close his eyes and cover them with sterilized gauzes for protection. Warm sensation is advisable. Dry the sweat on the skin after the radiation is finished.

RECOMMENDATIONS

1. Acupuncture for Bell's palsy in acute stage

It's recommended to apply acupuncture for Bell's palsy as early as possible, take local points and bilateral LI 4 (héǔ合谷) as the main points, and to differentially treat according to the pattern of invasion of wind-cold or wind-heat. The filiform needling is the most common method to use. Moxibustion, which was often used in ancient times, can be combined with filiform needling for pattern of invasion of wind-cold. Though there is evidence supporting applying the electro-acupuncture in the acute stage, it is not recommended in this guideline.

(Recommendation: Grade A)

1. Modern clinical evidence: Grade Ib^A ^{[23], [32]}, Grade Ib^B ^{[24],[39],[40],[41],[42]}

Grade II^A ^[43], II^B ^[44]

2. Evidence of experts' experiences: ^{[45],[46]}

3. Evidence of ancient classics: ^[47]

The detailed recommendations in acute stage is displayed in table 3.

Table 3. Detailed recommendations in acute stage

<ul style="list-style-type: none"> ● Selected acupoints <ul style="list-style-type: none"> ➢ Main points <ul style="list-style-type: none"> ● On the affected side: ST4 (dìcāng, 地仓), ST6 (jiǎchē, 颊车), GB14 (yángbái, 阳白), ST7 (xiàguān, 下关) ● On both sides: LI4 (hégu, 合谷) ➢ Points selection based on differentiation <ul style="list-style-type: none"> ● Pattern of invasion of wind-cold: G20 (fēngchí, 风池), LU7 (lièquē, 列缺) ● Pattern of attack of wind-heat: G20 (fēngchí, 风池), SJ5 (wàiguān, 外关), DU14 (dàzhū, 大椎), LI11 (qūchí, 曲池) ➢ Points selection based on symptom <ul style="list-style-type: none"> ● Headache: EX-HN5 (tài yáng, 太阳) ● Difficult to wrinkle the forehead and frown: BL2 (cuánzhú, 攒竹), SJ23 (sīzhúkōng, 丝竹空) ● Difficult to close the eye: BL1 (jīngmíng, 睛明), GB1 (tóngzǐliáo, 瞳子髎), EX-HN4 (yú yāo, 鱼腰) ● Shallow nasolabial groove: LI20 (yíngxiāng, 迎香) ● Deviated nasolabial groove: DU26 (shuǐgōu, 水沟) ● Deviated mentolabial sulcus: CV24 (chéngjiāng, 承浆) ● Unable to show the teeth: ST3 (jùliáo, 巨髎) ● Tinnitus and deafness: GB2 (tīnghuì, 听会) ● Mastoid tenderness: SJ17 (yīfēng, 翳风), GB12 (wángǔ, 完骨) ● Operation <ul style="list-style-type: none"> ➢ Filiform needling <p>The patient is in supine position. Filiform needles 1 to 1.5$_{\text{cm}}$ are used. After disinfection, the needles are inserted quickly and rotated till the arrival of qi is obtained. Retain the needles for 30 minutes. During the retaining, the needles should be manipulated once every 10 minutes, twice altogether. The time of each needle manipulation is 10 to 15 seconds. Press the needles hole after removing of needles to prevent bleeding.</p> ➢ Filiform needling combining with moxibustion <p>For the pattern of invasion of wind-cold, apply suspended moxibustion for 5 minutes after removing of the needles till the skin becomes reddish on the point LI4 (hégu, 合谷) of both sides simultaneously.</p> ● Treatment course <p>Once a day, 5 times as one course, 2 days for rest before the next course.</p> ● Cautions <p>In the acute stage, shallow needling is required; horizontal insertion should be applied on the facial points; and manipulation with heavy strength is not applicable.</p>
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2. Acupuncture for Bell's palsy in subacute stage

It's recommended to take local points and bilateral LI 4 (hégu 合谷) as the main points, differentially treat according to the pattern of invasion of wind-cold and wind-heat, and to apply the filiform needling, in addition, moxibustion is applicable for the former. Electro-acupuncture, infrared lamp radiation, and facial massage can be employed accordingly. From now on, the functional training can be carried out under the guidance of doctor to promote the recovery.

((Recommendation: Grade A)

1. Modern clinical evidence: Grade Ib^A [32], Grade Ib^B [48], [49], Grade Ib^C [50], [51], Grade II^A [52], [53], [54]
2. Evidence of experts' experiences: [45], [46]
3. Evidence of ancient classics: [47]

The detailed recommendations in convalescent stage is displayed in table 4.

Table 4. Detailed recommendations in subacute stage

<ul style="list-style-type: none"> ● Selected acupoints <ul style="list-style-type: none"> ➢ Main points <ul style="list-style-type: none"> ● On the affected side: ST4 (dìcāng, 地仓), ST6 (jiǎchē, 颊车), GB14 (yángbái, 阳白), ST7 (xiàguān, 下关), SJ17 (yīfēng, 翳风), Ex-HN16 (qiánzhèng, 牵正) ● On both sides: LI4 (hégu, 合谷) ➢ Points selection based on differentiation <ul style="list-style-type: none"> ● The same as the acute stage ➢ Points selection based on symptom <ul style="list-style-type: none"> ● Headache: G20 (fēngchí, 风池) ● Incomplete closure of eye: BL1 (jīngmíng, 睛明), GB1 (tóngzǐliáo, 瞳子髎), EX-HN4 (yú yāo, 鱼腰) ● Mastoid tenderness: GB12 (wángǔ, 完骨), SJ5 (wàiguān, 外关) ● others are as same as the acute stage ● Operation <ul style="list-style-type: none"> ➢ Filiform needling <p>The same as the acute stage.</p> ➢ Electro-acupuncture <p>After arrival of qi, 2 to 3 pairs of points are connected with the electric stimulator, for example, BL2 (cuánzhú, 攒竹) and SJ23 (sīzhúkōng, 丝竹空), ST6 (jiǎchē, 颊车) and Ex-HN16 (qiánzhèng, 牵正). Dense-disperse wave or intermittent wave is used. The intensity is as strong as to help the patient move the facial expression muscles. Let the patient move the facial expression muscles for 5 minutes and stop for a rest to avoid tiredness. The electric stimulation is kept for 30 minutes each time.</p> ➢ Comprehensive treatment <ul style="list-style-type: none"> ● Filiform needling combining with moxibustion: For the pattern of invasion of wind-cold, apply suspended moxibustion for 5 minutes after withdrawing the needles till the skin becomes reddish on bilateral LI4 (hégu, 合谷). ● Filiform needling combining with facial massage: After withdrawing the needles, apply massage to relax facial muscles, about 10 minutes each time, once a day. ● Electro-acupuncture combining with infrared lamp radiation: During the treatment of electro-acupuncture, infrared lamp radiation in a distance of 30 to 40cm with a comfortable degree of heat is used to the facial region and the region behind the ear of affected side for 15 minutes. Once a day. ● Treatment course <p>Once a day, 5 times as one course, and 2 days for rest before the next course.</p>
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3. Acupuncture for Bell's palsy in convalescent stage

It's recommended to take local points and bilateral LI 4 (hégu 合谷) as the main points, differentially treat according to the pattern of phlegm and blood stasis obstructing collaterals, qi deficiency with blood stasis, or yin deficiency producing wind, and to apply penetrating method of filiform needling or electro-acupuncture. Moxibustion and physiotherapy can be employed accordingly.

(Recommendation: Grade A)

1. Modern clinical evidence: Grade Ib^A [32], Grade Ib^B [42], [50], [55] Grade II^A [56]
2. Evidence of experts' experiences: [30]
3. Evidence of ancient classics: [47]
4. GPP

4. The detailed recommendations in convalescent stage is displayed in table 5.

Table 5. Detailed recommendations in convalescent stage

- **Selected acupoints**
 - > **Main points**
 - On the affected side: ST4 (dìcāng, 地仓), ST6 (jiáchē, 颊车), GB14 (yángbái, 阳白), EX-HN4 (yúyāo, 鱼腰), ST7 (xiàguān, 下关)
 - On both sides: LI4 (héǔ, 合谷)
 - > **Point selection based on differentiation**
 - Pattern of phlegm and blood stasis obstructing collaterals: ST36 (zúsānlǐ, 足三里) ST40 (fēnglóng, 丰隆)
 - Pattern of qi deficiency with blood stasis: CV4 (guānyuán, 关元), CV6 (qìhǎi, 气海), SP10 (xuèhǎi, 血海)
 - Pattern of Yin deficiency producing wind: KI3 (tài-xī, 太溪), KI6 (zhào-hǎi, 照海), LR3 (tài-chōng, 太冲)
- **Operation**
 - > **Filiform needling**

The patient The patient is in supine position. Filiform needles 1 to 2_{cun} are used. After disinfection, the needle is inserted quickly, penetrating from ST4 (dìcāng, 地仓) to ST6 (jiáchē, 颊车), from GB14 (yángbái, 阳白) to EX-HN4 (yúyāo, 鱼腰). Needle other points in a routine way. Rotate the needles till the arrival of qì is obtained. Retain the needles for 30 minutes. During the retaining, the needles should be manipulated once every 10 minutes, twice altogether. Each needle manipulation lasts 10 to 15 seconds. Press the needles hole after removing of needles to prevent bleeding.
 - > **Electro-acupuncture**

After arrival of qì, 2 to 3 pairs of points are connected with the electric stimulator, for example, ST4 (dìcāng, 地仓) and ST6 (jiáchē, 颊车), CV4 (guānyuán, 关元) and CV6 (qìhǎi, 气海). Dense-disperse wave or intermittent wave is used. The intensity is medium degree to the patient's endurance. The electric stimulation is kept for 20 minutes each time. As for LI4 (héǔ, 合谷) of both sides, the needles are retained 10 minutes more after the electro-acupuncture.
 - > **Comprehensive treatment**
 - **Filiform needling combining with moxibustion:** The same as the subacute stage.
 - **Filiform needling combining with facial massage:** The same as the subacute stage.
 - **Filiform needling combining with infrared lamp radiation:** The same as the subacute stage.
 - **Electro-acupuncture combining with grain-sized moxi bustion:** After electro- acupuncture, apply wheat-grain sized moxibustion in the facial region, 3 cones for each point, once a day.
- **Treatment course**

Once a day, 5 times as one course, 2 days for rest before the next course.

4. Acupuncture for Bell's palsy in sequelae stage

It's recommended to take local points, bilateral LI 4 (héǔ, 合谷) and ST 36 (zúsānlǐ, 足三里) as the main points, differentially treat according to the pattern of phlegm and blood stasis obstructing collaterals, qi deficiency with blood stasis, or yin deficiency producing wind, and to apply penetrating method of filiform needling in combination with electro-acupuncture.

(Recommendation: Grade B)

1. Modern clinical evidence: Grade Ib^B [55], Grade II^A [56]
2. Evidence of experts' experiences: [30]
3. GPP

Table 6. Detailed recommendations in sequelae stage

- **Selected acupoints**
 - > **Main points**
 - On the affected side: ST4 (dìcāng, 地仓), ST6 (jiáchē, 颊车), ST8 (tóuwéi, 头维), GB6 (xuánlí, 悬厘), GV24 (shéntíng, 神庭), GB4 (hányàn, 颞厌), EX-HN5 (tài-yáng, 太阳), GB14 (yángbái, 阳白), SI18 (quánliáo, 颞髂).
 - On both sides: LI4 (héǔ, 合谷), ST36 (zúsānlǐ, 足三里).
 - > **Point selection based on differentiation**
 - The same as convalescent stage.
- **Operation**
 - > **Filiform needling**

The patient is in supine position. Filiform needles 2_{cun} length are used. After disinfection, the needle is inserted quickly, penetrating from ST4 (dìcāng, 地仓) to ST6 (jiáchē, 颊车), from ST8 (tóuwéi, 头维) to GB6 (xuánlí, 悬厘), from GV24 (shéntíng, 神庭) to GB4 (hányàn, 颞厌). Needle other points in a routine way. Rotate the needles till the arrival of qì is obtained.
 - > **Electro-acupuncture**

After arrival of qì, 2 to 3 pairs of points are connected with the electric stimulator. Electric stimulation is applied with a dense wave and an endurable intensity for 20 minutes. The intensity is medium degree to the patient's endurance.
 - **Treatment course**

Once a day, 15 times as one course, 3 days for rest before the next course.

The detailed recommendations in sequelae stage is displayed in table 6.

5. Acupuncture for special patients with Bell's palsy

The special patients described here include diabetic, children and pregnant women. In addition to the therapeutic principles mentioned above, special attention should be paid to the following importance.

5.1. Acupuncture for diabetic with Bell's palsy

It's recommended to apply filiform needling together with Chinese herbal treatment for the diabetic with Bell palsy, on the premise of blood sugar well-controlled. Aseptic operation should be very strictly carried out to avoid infection.

((Recommendation : Grade C)

1. Modern clinical evidence: Grade Ib^B [57]
2. GPP

5.2. Acupuncture for children with Bell's palsy

It's recommended to apply gentle massage before needling for the children with Bell palsy. Shallow insertion and mild manipulation are important.

((Recommendation : GPP)

5.3. Acupuncture for pregnant women with Bell's palsy

It's recommended to take specific cautions and explain in detail to the patient and her family members for the pregnant women with Bell palsy. During treatment, psychological work should be carried out and the fetal movements should be observed. It is forbidden to puncture DU26 (shuǐgōu,水沟), LI4 (héǔ,合谷), LR3 (tàichōng,太冲) and SP6 (sānyīnjiāo,三阴交). Mild needling to avoid strong stimulation is a must.

((Recommendation : GPP)

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APPENDICES

Appendix 1.

List of Expert's Guidance Committee

Name	Title	Specialty	Unit	Charge
Bao-yan Liu	Chief Physician	acupuncture research	China Academy of Chinese Medical Sciences	Guide for guideline development methodology
Jing Li	Professor	clinical epidemiology, evidence-based medicine	The Chinese Cochrane Center	Guide for guideline development methodology
Ka-ming Hu	Chief Physician	acupuncture clinic	Chinese Medicine Hospital of Sichuan Province	Help to raise clinical questions and give advice on guideline draft
Hong Zhang	Professor	acupuncture clinic	Chengdu University of T.C.M.	Help to raise clinical questions and give advice on guideline draft
Ke-gang Deng	Researcher	evidence-based medicine	The Chinese Cochrane Center	Guide for information retrieval
Yong Tang	Researcher	acupuncture research	Chengdu University of T.C.M.	Guide for guideline writing
Ning Li	Associate Chief Physician	acupuncture clinic	West China Hospital, Sichuan University	Guide for guideline writing

Appendix 2.

Members of Clinical Guideline Writing Team

Name	Title	Specialty	Unit	Charge
Fan-rong Liang	Professor	acupuncture	Chengdu University of T.C.M.	draft the guideline
Ying Li	Professor	acupuncture	Chengdu University of T.C.M.	draft the guideline
Xi Wu	Associate Professor	acupuncture	Chengdu University of T.C.M.	draft the guideline
Yi-hui Zhu	Professor	acupuncture	Chengdu University of T.C.M.	draft the guideline
Qin Chen	attending physician	acupuncture	Zhejiang University of T.C.M.	assess RCTs, Cohort studies and Case-Control studies
Xue-zhi Li	Associate Professor	acupuncture	Chongqing Medical University	assess ancient literatures
Ling Luo	Associate Professor	acupuncture	Chengdu University of T.C.M.	assess other clinical studies
Hui Zheng	Associate Professor	acupuncture	Chengdu University of T.C.M.	assess RCTs, Cohort studies and Case-Control studies
Fang Zeng	Professor	acupuncture	Chengdu University of T.C.M.	assess ancient literatures
Wen-jing Huang	Doctor	acupuncture	Chengdu University of T.C.M.	assess other clinical studies
Ling Zhao	Associate Professor	acupuncture	Chengdu University of T.C.M.	assess RCTs, Cohort studies and Case-Control studies
Xiao-dong Wu	Associate Researcher	acupuncture	Institute of Acupuncture and Moxibustion, China Academy of Chinese Medical Sciences	discuss and verify the levels of evidence and recommendations
Hong Zhao	Associate Chief Physician	acupuncture	Acupuncture and Moxibustion Hospital, China Academy of Chinese Medical Sciences	discuss and verify the levels of evidence and recommendations
Ming-jie Zi	attending physician	acupuncture	Xiyuan Hospital, China Academy of Chinese Medical Sciences	discuss and verify the levels of evidence and recommendations
Xu Guo	attending physician	acupuncture	Beijing Anzhen Hospital, Capital Medical University	discuss and verify the levels of evidence and recommendations
Si-yuan Zhou	lecturer	acupuncture	Chengdu University of T.C.M.	literature retrieval
Hui-juan Tan	Postgraduate	acupuncture	Chengdu University of T.C.M.	literature retrieval

Appendix 3.

China Biology Medicine disc (CBMdisc) Search strategy

#1	主题词:面神经麻痹/全部树/全部副主题词
#2	主题词:Bell麻痹/全部树/全部副主题词
#3	缺省[智能]:bell 面瘫
#4	缺省[智能]:bell 麻痹
#5	缺省[智能]:贝尔面瘫
#6	缺省[智能]:贝尔麻痹
#7	缺省[智能]:周围性面神经麻痹
#8	缺省[智能]:周围性面瘫
#9	缺省[智能]:面神经炎
#10	缺省[智能]:非特异性面神经炎
#11	缺省[智能]:特发性周围性面瘫
#12	缺省[智能]:特发性面神经炎
#13	缺省[智能]:特发性面神经麻痹
#14	缺省[智能]:口眼歪斜
#15	缺省[智能]:口眼口斜
#16	缺省[智能]:口僻
#17	缺省[智能]:口□
#18	缺省[智能]:吊线风
#19	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18
#20	主题词:针灸疗法/全部树/全部副主题词
#21	主题词:针刺疗法△/全部树/全部副主题词
#22	主题词:针刺疗法/全部树/全部副主题词
#23	主题词:特定部位针刺疗法/全部树/全部副主题词
#24	主题词:特定组织针刺疗法/全部树/全部副主题词
#25	主题词:针刺穴位△/全部树/全部副主题词
#26	主题词:针刺穴位/全部树/全部副主题词
#27	主题词:针刺, 耳/全部树/全部副主题词
#28	主题词:耳针△/全部树/全部副主题词
#29	主题词:穴位, 耳针/全部树/全部副主题词
#30	主题词:电针△/全部树/全部副主题词
#31	主题词:电针/全部树/全部副主题词
#32	主题词:针灸研究/全部树/全部副主题词
#33	主题词:灸法△/全部树/全部副主题词
#34	主题词:灸法/全部树/全部副主题词
#35	缺省[智能]:针灸
#36	缺省[智能]:针刺
#37	缺省[智能]:电针
#38	缺省[智能]:耳针
#39	缺省[智能]:穴位埋线
#40	缺省[智能]:穴位注射
#41	缺省[智能]:皮肤针
#42	缺省[智能]:腕踝针
#43	缺省[智能]:腹针
#44	缺省[智能]:梅花针
#45	缺省[智能]:滚针
#46	缺省[智能]:灸法
#47	缺省[智能]:艾灸
#48	#20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47
#49	#19 and #48
#50	特征词:动物 not (ct=人类 and ct=动物)
#51	#49 not #50

Appendix 4.

Pubmed Search strategy

#1	Bell Palsy [mh]
#2	Facial Paralysis [mh]
#3	Facial Nerve Disease [mh]
#4	Bell Palsy [ti, ab]
#5	Facial Paralysis [ti, ab]
#6	Facial Nerve Disease [ti, ab]
#7	Facial Nerve Paralysis [ti, ab]
#8	or/1-7
#9	Acupuncture Therapy [mh]
#10	Acupuncture [mh]
#11	Acupuncture, Ear [mh]
#12	Acupuncture Points [mh]
#13	Electric Stimulation Therapy [mh]
#14	Moxibustion [mh]
#15	acupuncture [ti, ab]
#16	electroacupuncture [ti, ab]
#17	auricular acupuncture [ti, ab]
#18	acupoint* [ti, ab]
#19	acupress* [ti, ab]
#20	percussopunctator [ti, ab]
#21	ear acupuncture [ti, ab]
#22	electro-acupuncture [ti, ab]
#23	laser acupuncture [ti, ab]
#24	or/9-23
#25	#8 and #25

Appendix 5.

Embase Search strategy

#1	'bell palsy'/exp
#2	'facial nerve paralysis'/exp
#3	'bell palsy' :ti:ab
#4	'facial paralysis':ti:ab
#5	'facial nerve disease':ti:ab
#6	'facial nerve paralysis':ti:ab
#7	#1 or #2 or #3 or #4 or #5 or #6
#8	'acupuncture'/exp
#9	'acupuncture needle'/exp
#10	'moxibustion'/exp
#11	'acupuncture':ti:ab
#12	'acupuncture therapy':ti:ab
#13	'electroacupuncture' :ti:ab
#14	'electric acupuncture':ti:ab
#15	'ear acupuncture':ti:ab
#16	'percussopunctator':ti:ab
#17	'dermal needle':ti:ab
#18	'moxibustion':ti:ab
#19	#8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18
#20	#7 and #19
#21	[humans]/ lim
#22	#20 and #21