

SCALP ACUPUNCTURE



The International  
Standard Scheme for  
Scalp Acupuncture

XIAOTIAN SHEN L.Ac

# SCALP ACUPUNCTURE

- ❁ General Introduction & schools of scalp acupuncture

- ❁ A Brief History

In the ancient time

50's

70's

May 1984, November 1989

# SCALP

## Regional Anatomy

- ✿ Structure: 5 layers

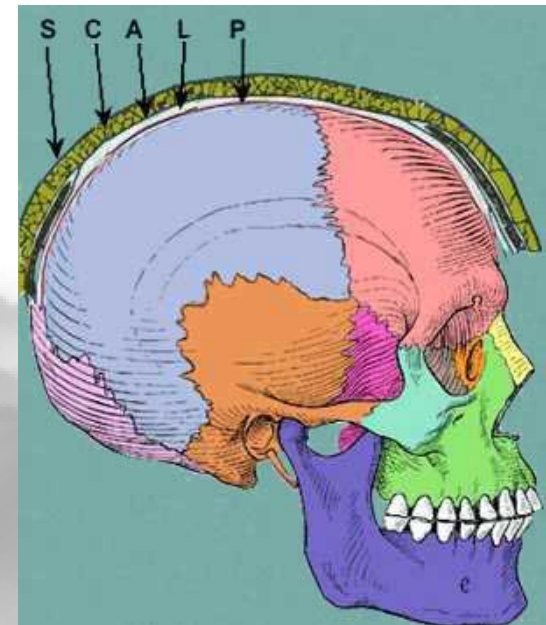
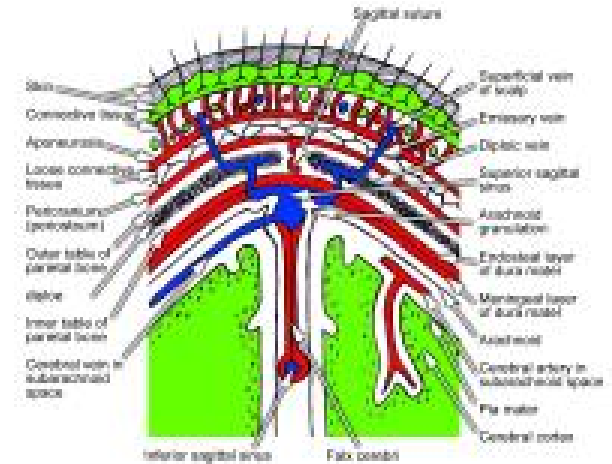
The soft tissue envelope of the cranial vault is called the scalp. The scalp extends from the external occipital protuberance and superior nuchal lines to the supraorbital margins. The scalp consists of 5 layers: the skin, connective tissue, epicranial aponeurosis, loose areolar tissue, and pericranium. The first 3 layers are bound together as a single unit. This single unit can move along the loose areolar tissue over the pericranium, which is adherent to the calvarium.

# SCALP

The scalp is made of 5 layers and they spell

**SCALP:**

- ✿ **S** -- skin
- ✿ **C** -- connective tissue
- ✿ **A** – aponeurosis epicranialis
- ✿ **L** -- loose connective tissue
- ✿ **P** -- pericranium



# SCALP

## Sensory supply

Six sensory nerve branches of either the trigeminal nerve or the cervical nerve supply the scalp.

- ❁ The **supratrochlear nerve** is a branch of the ophthalmic division of the trigeminal nerve. This nerve supplies the scalp in the medial plane at the frontal region up to the vertex.
- ❁ The **supraorbital nerve** is also a branch of the ophthalmic division of the trigeminal nerve. This nerve supplies the scalp at the front, lateral to the supratrochlear nerve distribution, up to the vertex.
- ❁ The **zygomaticotemporal nerve** is a branch of the maxillary division of the trigeminal nerve and supplies the scalp over the temple region.
- ❁ The **auriculotemporal nerve** is a branch of the mandibular division of the trigeminal nerve and supplies the skin over the temporal region of the scalp.
- ❁ The **lesser occipital nerve** is a branch of the cervical plexus (C2), which supplies the scalp over the lateral occipital region.
- ❁ The **greater occipital nerve** is a branch of the posterior ramus of the second cervical nerve. This nerve supplies the scalp in the median plane at the occipital region up to the vertex.

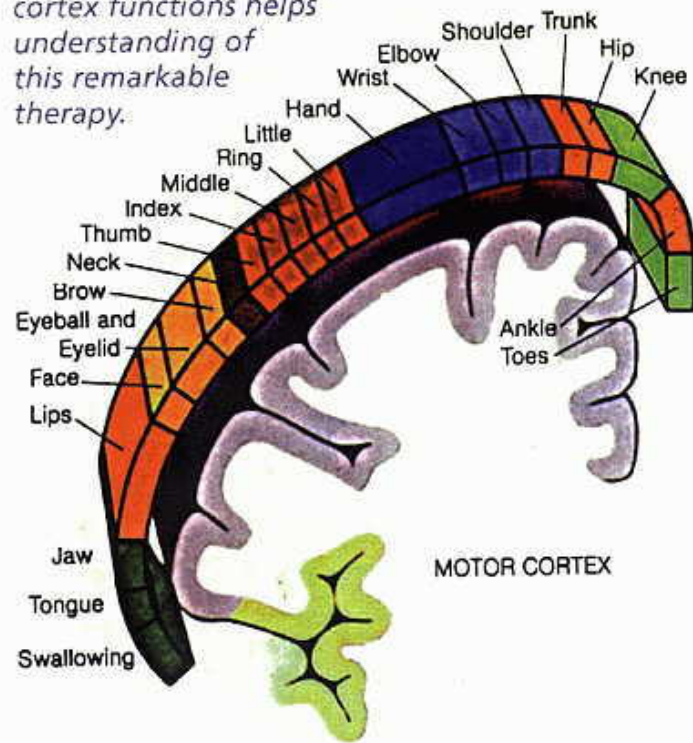
# Arterial supply

- ❁ The scalp has a rich vascular supply. The blood vessels traverse the connective tissue layer, which receives vascular contribution from the internal and external carotid arteries. The blood vessels anastomose freely in the scalp. From the midline anteriorly, the arteries present as follows: supratrochlear, supraorbital, superficial temporal, posterior auricular, and occipital.
- ❁ The **supratrochlear and supraorbital arteries** are 2 branches of the **ophthalmic artery**, which, in turn, is a branch of the internal carotid artery. These arteries accompany the corresponding nerves.
- ❁ The **superficial temporal artery** is a terminal branch of the external carotid artery that ascends in front of the auricle. This artery, which supplies the scalp over the temporal region, travels with the auriculotemporal nerve and divides into anterior and posterior branches.
- ❁ The **posterior auricular artery** is a branch of the external carotid artery that ascends posterior to the auricle.
- ❁ The **occipital artery** is a branch of the external carotid artery. It is accompanied by the greater occipital nerve.

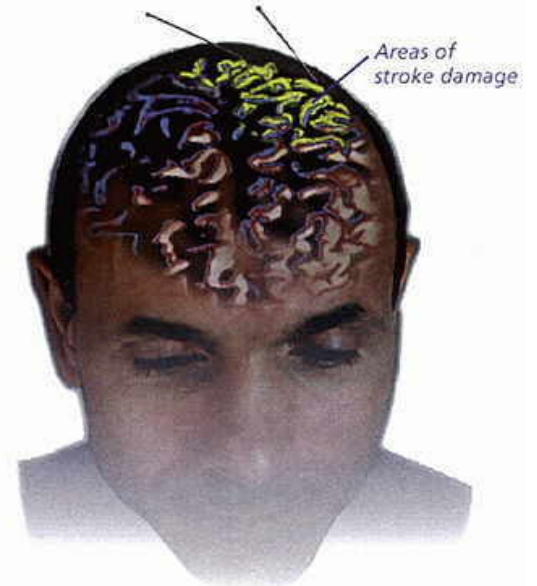
# Venous drainage

- ❁ The veins of the scalp freely anastomose with one another and are connected to the diploic veins of the skull bones and the intracranial dural sinuses through several emissary veins. The emissary veins are valveless. The veins of the scalp accompany the arteries and have similar names.
- ❁ **The supratrochlear and supraorbital veins drain the anterior region of the scalp. These 2 veins unite to form the angular vein at the medial angle region of the eye and continue further as the facial vein. The superficial temporal vein descends in front of the auricle and enters the parotid gland. It joins the maxillary vein to form the retromandibular vein. The anterior division of the retromandibular vein unites with the facial vein to form the common facial vein, which then drains into the internal jugular vein.**
- ❁ **The posterior auricular vein joins the posterior division of the retromandibular vein to form the external jugular vein.**
- ❁ **The occipital vein terminates in the suboccipital venous plexus, which lies beneath the floor of the upper part of the posterior triangle.**

Modern maps of cerebral cortex functions helps understanding of this remarkable therapy.



The acupuncture occurs beside stroke damage.





# The Channels to the Head

There're 8 channels going up to the *head* directly:

- ✿ BL
- ✿ SJ
- ✿ GB
- ✿ ST
- ✿ LV
- ✿ DU
- ✿ Yangwei
- ✿ Yangqiao

There're 6 channels reaching the face:

- ✿ LI
- ✿ SI
- ✿ Ht
- ✿ Ren
- ✿ Chong
- ✿ Yinqiao

# Point Location Refreshment

- ✿ Du-24
- ✿ BL-3
- ✿ GB-14
- ✿ GB-15
- ✿ St-8
- ✿ Du-20
- ✿ Du-21
- ✿ Si Shen Cong
- ✿ GB-7
- ✿ GB-6
- ✿ BL-7
- ✿ GB-17
- ✿ GB-16
- ✿ GB-18
- ✿ GB-4
- ✿ D-17
- ✿ D-18
- ✿ BL-9
- ✿ BL-10

Distance from Anterior Hair Line

- ❁ BL-3: 0.5
- ❁ BL-4: 0.5
- ❁ BL-5: 1
- ❁ BL-6: 2.5
- ❁ BL-8: 5.5

- ❁ GB-15: 0.5
- ❁ GB-16: 1
- ❁ GB-17: 2.5
- ❁ GB-18: 4

(cun)

# The International Standard Scheme for Scalp Acupuncture

There're 14 locations of scalp lines, 25 lines in total

- ❁ 3 single lines (middle lines)

- ❁ 11 pairs of lines (symmetric)

General locations of the lines

- ❁ Forehead area: 4 locations, 7 lines:  
MS1-4

- ❁ Vertex area: 5 locations, 9 lines:  
MS5-9

- ❁ Temple area: 2 locations, 4 lines:  
MS10 & 11

- ❁ Occipital area: 3 locations, 5 lines:  
MS 12-14

# Needles for Scalp Acupuncture

- ❁ Gauge: # 30 (0.32mm), #32 (0.25mm), #34 (0.22mm), #36 (0.20mm), #38 (0.18mm)
- ❁ Length: 1 cun, 1.5 cun



# Positioning



- ❁ Position of the patient
- ❁ Position of the practitioner

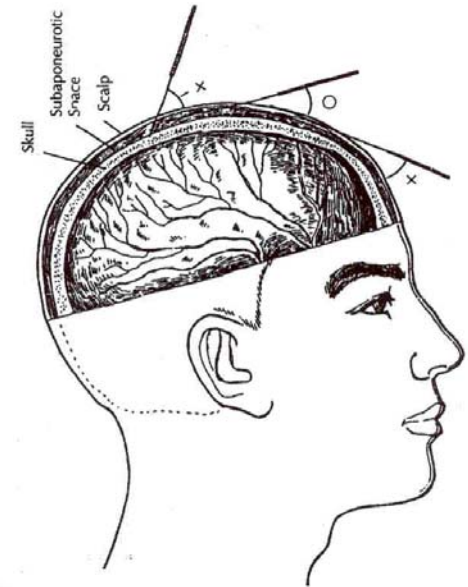
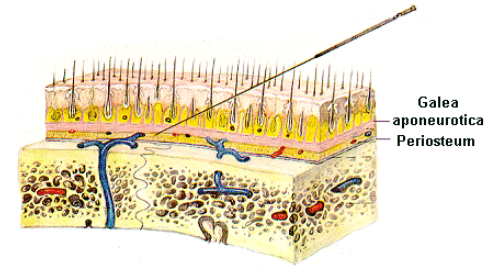
# CNT for Scalp Acupuncture

- ❁ Wash the hair
- ❁ Separate hair
- ❁ 2% iodine
- ❁ 70% alcohol



# Needle Insertion

- Depth
- Angle
- Needling
- Sensations





# Normal Needling Sensations

- ❁ **Pressure**
- ❁ **Soreness**
- ❁ **Heaviness**
- ❁ **Distention**
- ❁ **Cool sensation**
- ❁ **Warm sensation**



- ❁ Needle Retention and Manipulation
- ❁ Withdrawal
- ❁ Acupressure on scalp
- ❁ Electrical acupuncture on scalp
- ❁ Precautions

# Manipulations

- ❁ After the arrival of Qi, manipulate the needles during retention every 10-15 minutes.
- ❁ Rotate a needle at small amplitude but rapid (about 200 twists per minute) for 1 – 3 minutes.

# Precautions

- ❁ No scalp acupuncture on infants whose fontanel is not closed, or a patient with injury or post operative wound or tumor.
- ❁ For the patients at acute stage of cerebral hemorrhage, heart failure and weak constitution, scalp acupuncture should be used with caution.
- ❁ Avoid scars, sores and hair follicles.
- ❁ During the treatment, watch the patient closely to avoid acushock.
- ❁ Prevent bleeding on withdrawal.
- ❁ Always count the needles.

# Reinforcing and reducing

- ❁ Reducing method: after inserting a needle into the loose connective tissues, lift the needle forcefully in 3 rapid motions, then thrust the needle back gently.

Reinforcing method: after inserting a needle into the loose connective tissues, thrust the needle forcefully in 3 rapid motions, then lift the needle back gently.

- ❁ Reinforcing and reducing along or against a channel:

MS-1, MS-5, MS-2, MS-3, MS-8,  
MS-9, MS-10, MS-11, MS-12, MS-14

# Other Needling Techniques

- ❁ Opposite needling:  
Up ↔ Down: MS-1, 2, 3, 4,  
12, 13, 14  
Back ↔ Forth: MS-5, 8, 9
- ❁ Threading method: MS-6  
and 7, MS-12 and 13
- ❁ Relay needling: multiple  
needles to cover a long line
- ❁ Triple needling: \//  
MS-1, 5, 12, Du-20 (Y),

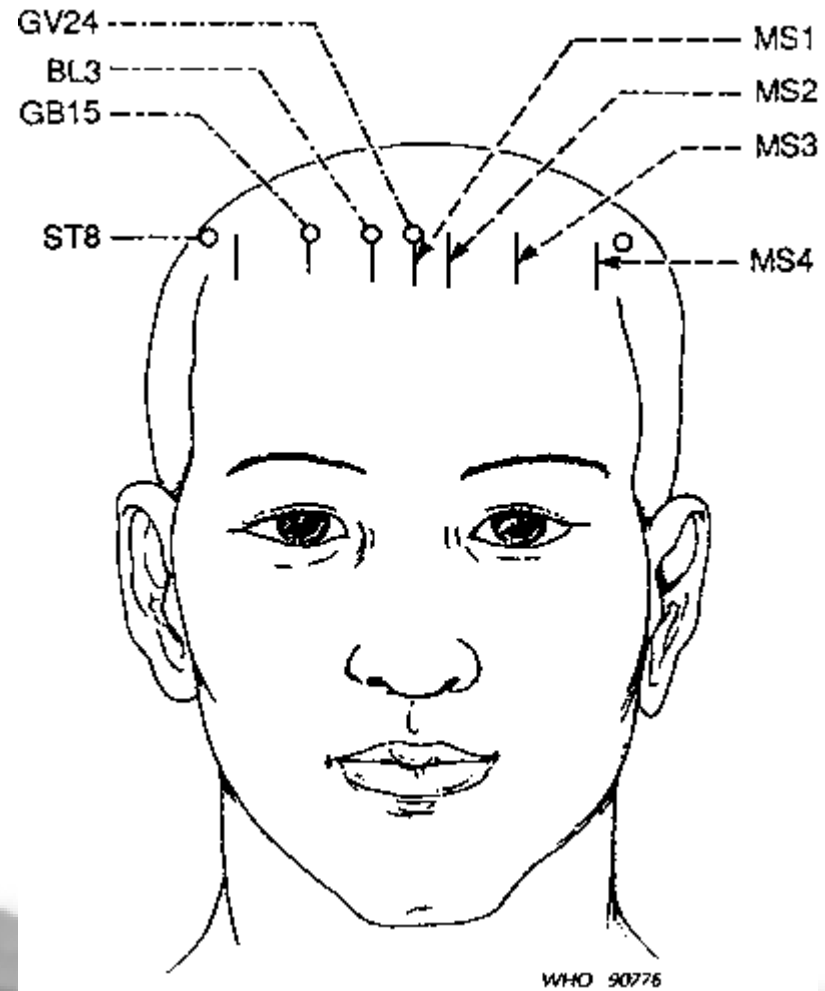
# Chose Side

- ❁ For disorders above the neck, needle scalp lines on the same side
- ❁ For disorders below the neck, needle the opposite side
- ❁ For disorders on both sides, needle the lines bilaterally
- ❁ For interior or general disorders (i.e., reproductive diseases, digestive problems, etc.,) needle bilaterally.



# Locations and functions of Scalp Lines





# MS1 Middle Line of Forehead (Ezhongxian)

- ❁ 1 cun long from DU24 *Shengting* straight down along the meridian.
- ❁ *Indications:*
  - ❁ *psycho-emotional disorders*
  - ❁ *nasal disorders*

## MS2 Lateral Line 1 of Forehead (Epangxian I)

- ❁ 1 cun long from BL3 *Meichong* straight down along the meridian.
- ❁ *Indications:*
  - ❁ *Disorders in the upper-jiao*
  - ❁ *Disorder of nose*

# MS3 Lateral Line 2 of – Forehead (Epangxian II)

❁ 1 cun long from GB15 *Toulinqi*  
straight down along the meridian.

❁ *Indications:*

⌘ *Disorders in the middle-jiao,*

⌘ *Disorder of eyes*

# MS4 Lateral Line 3 of Forehead (Epangxian III)

❁ 1 cun long from the point 0.75 cun medial to ST8 *Touwei* straight down.

❁ *Indications:*

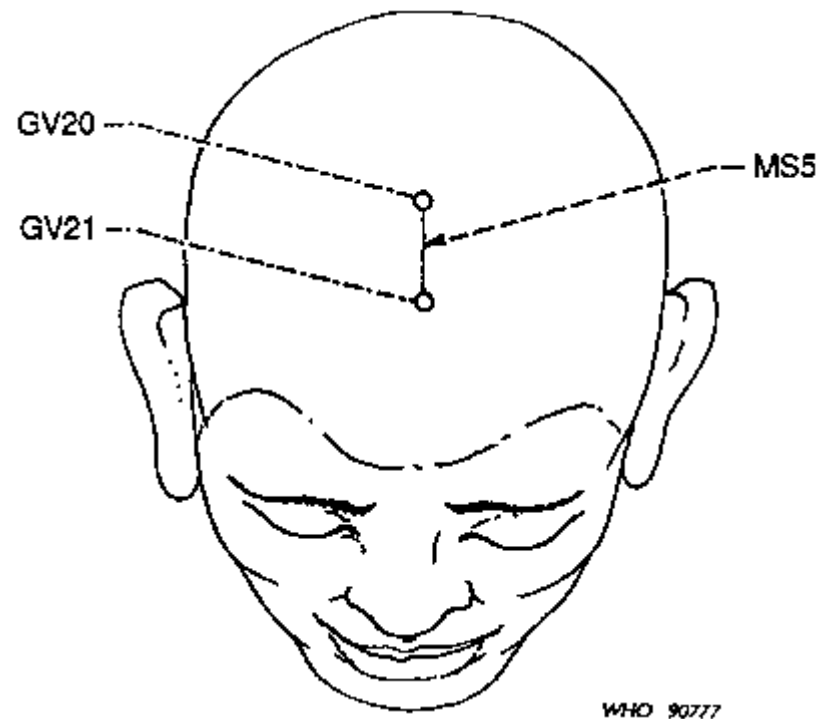
⌘ *disorders in the lower-jiao,*

❁ *(1) gynecological diseases,*

❁ *(2) male's reproductive disorders,*

❁ *(3) urinary disorders*

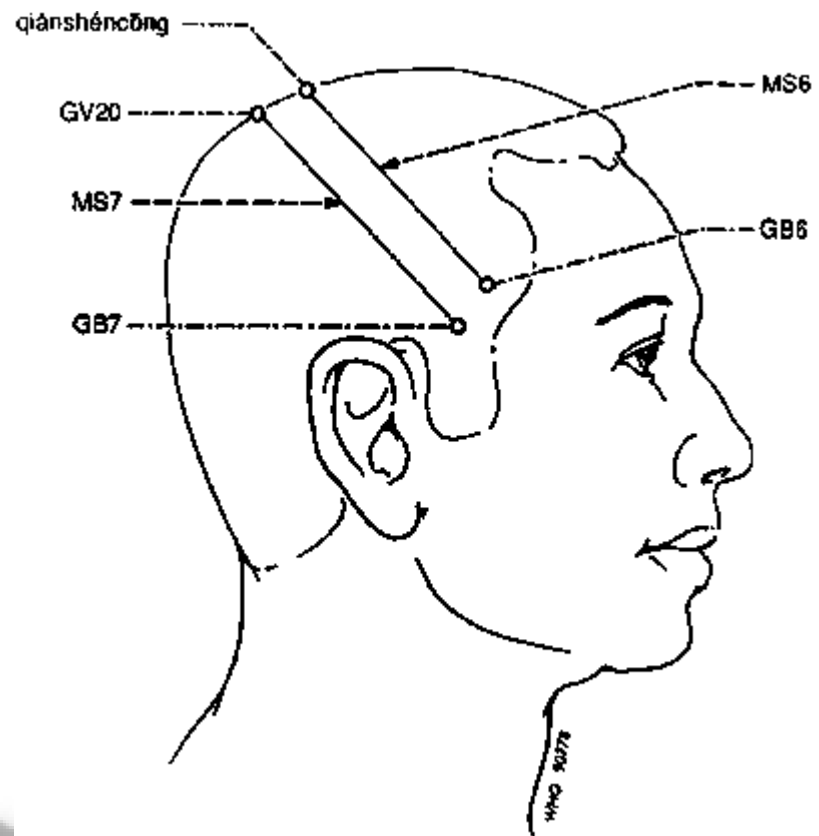
⌘ *Disorder of eyes*



WHO 90777

# MS5 Middle Line of Vertex (Dingzhongxian)

- ❁ From DU20 *Baihui* to DU21 *Qianding* along the midline of head.
- ❁ *Indications:*
  - ❁ *diseases in the region lower than the waist*
  - ❁ *mental disorders and emotional diseases*
  - ❁ *prolapsed rectum or uterus*
  - ❁ *local pain: pain in the vertex region*





## MS6 Anterior Oblique Line of Vertex-Temporal (Dingnie Qianxiexian)

- ✿ From *Qianshencong* (one of acupuncture points of Ex-HN1 Sishencong, 1 cun anterior to DU20 *Baihui* obliquely to GB6 *Xuanli*).
- ✿ *Indications:*
  - ✿ *mobility impairment:*
    - ✿ *upper section (upper 1/5 of the line ): paralysis, dyscinesia in the trunk and lower limbs;*
    - ✿ *middle section (middle 2/5 of the line) : dyscinesia in the upper limbs;*
    - ✿ *lower section (lower 2/5 of the line) : dyscinesia in the head and face, central facial paralysis, aphemia, anaudia, salivation, central arteriosclerosis, etc.*

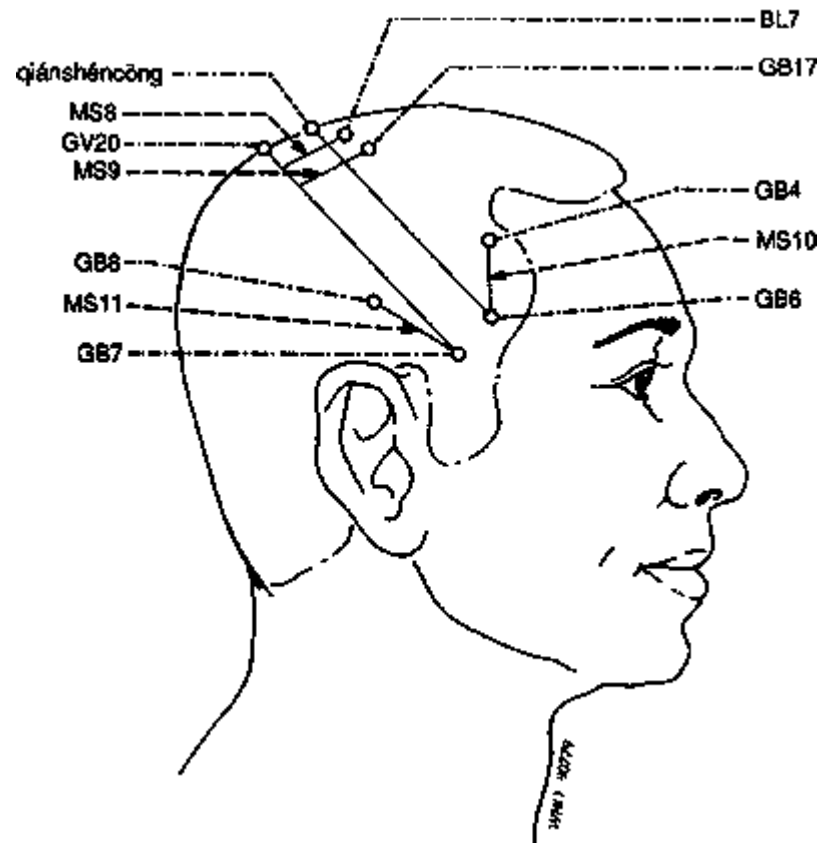
# MS7 Posterior Oblique Line of Vertex-Temporal (Dingnie Houxiexian)

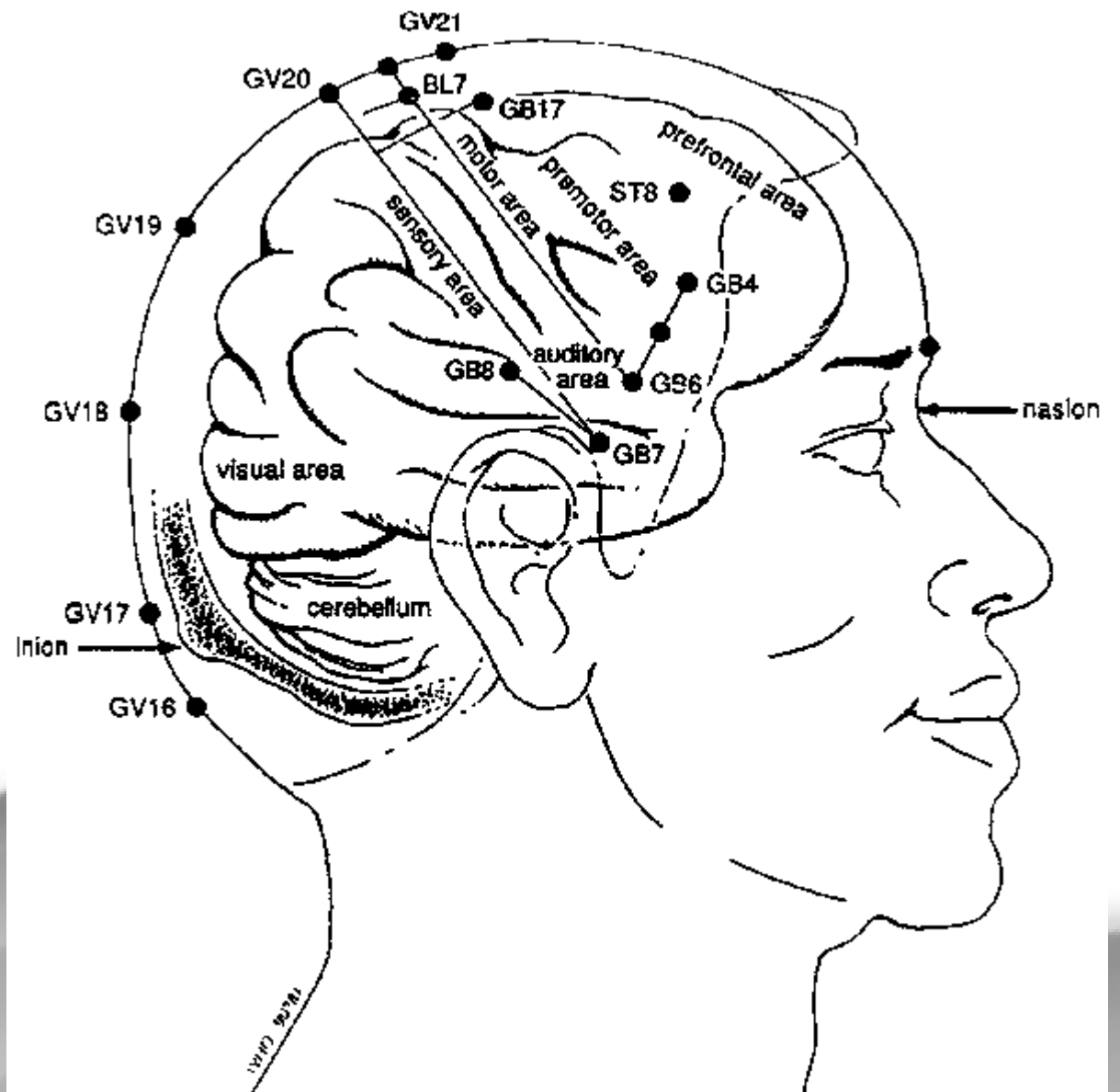
❁ From DU20 *Baihui* obliquely to GB7 *Qubin*.

❁ *Indications:*

❁ *sensation impairment:*

- ❁ (1) *upper section (upper 1/5 of the line):  
formication, paresthesia and sensory  
disturbance in the trunk and lower limbs;*
- ❁ (2) *middle section (middle 2/5 of the line) :*  
*sensory impairment in the upper limbs;*
- ❁ (3) *lower section (lower 2/5 of the line) :*  
*sensory impairment in the head and face*





# MS8 Lateral Line 1 of Vertex (Dingpangxian I)

- ❁ 1.5 cun lateral to Middle Line of Vertex, 1.5 cun long from BL7 *Tongtian* , backward along the meridian. (From BL7 *Tongtian* to BL-8 *Luoque*)
- ❁ *Indications: diseases and symptoms of the waist and legs, such as paralysis, numbness, pain, etc.*

## MS9 Lateral Line 2 of Vertex (Dingpangxian II)

- ❁ 2.25 cun lateral to Middle Line of Vertex, 1.5 cun long from GB17 *Zhengying* backward along the meridian. (From GB-17 *Zhnegying* to GB-18 *Chengling*)
- ❁ *Indications: diseases and symptoms of the shoulders, arms and hands, such as paralysis, numbness, pain, etc.*

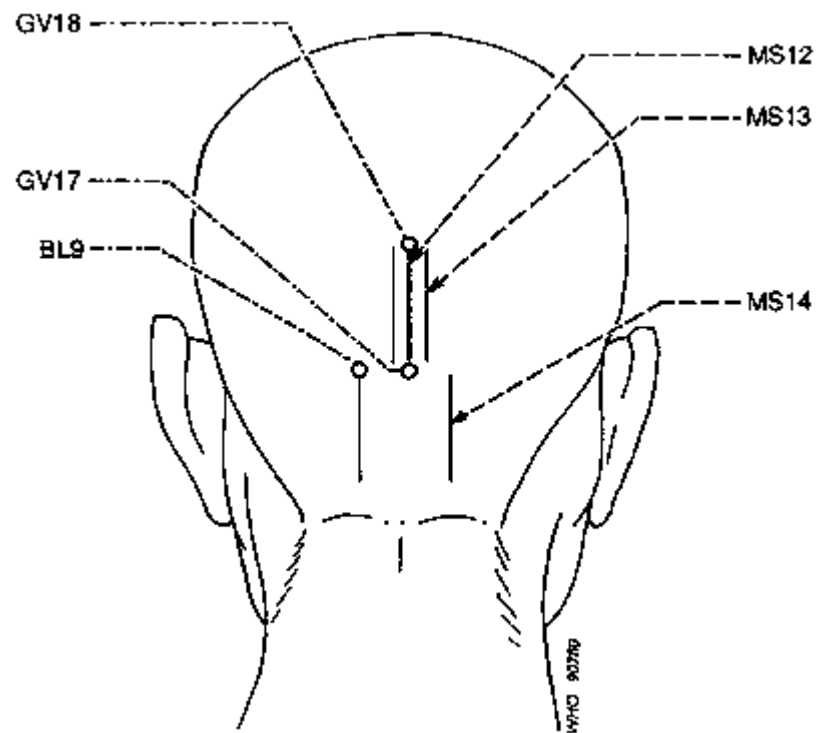
# MS10 Anterior Temporal Line (Nieqianxian)

- ❁ From GB4 *Hanyan* to GB6 *Xuanli*.
- ❁ *Indications: Disorders of head, face and neck.*

# MS11 Posterior Temporal Line (Niehouxian)

- ❁ From GB8 *Shuaigu* to GB7 *Qubin*.
- ❁ *Indications:*
  - ❁ *Dizziness, vertigo*
  - ❁ *Disorders of ears*





# MS12 Upper-Middle - Line of Occiput

(Zhenshang Zhengzhongxian)

- ❁ From DU18 *Qiangjian* to DU17 *Naohu*.
- ❁ *Indications: eye diseases: inflammations in the eyes, keratitis, and conjunctivitis.*

# MS13 Upper-Lateral Line of Occiput (Zhenshang Pangxian)

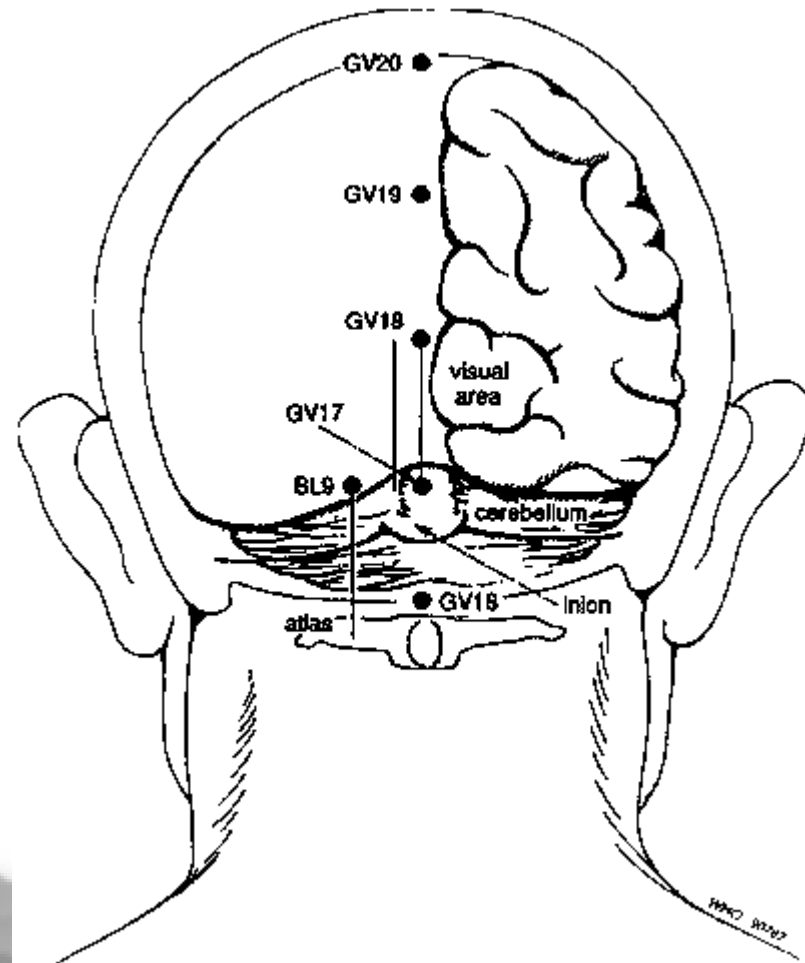
- ❁ 0.5 cun lateral and parallel to Upper-Middle Line of Occiput (MS-12).
- ❁ *Indications: cortical visual disturbance*

# MS14 Lower-Lateral Line of Occiput (Zhengnxia Pangxian)

❁ 2 cun long from BL9 *Yuzhen* straight down. (From BL9 to BL10 *TianZhu*)

❁ *Indications:*

- ❁ *cerebella diseases (cerebella injury or atrophy),*
- ❁ *pain in the occipital region and nape.*



## Stroke

- ❁ Restore sensation and motility
- ❁ Improve muscle tones
- ❁ MS-5, 6,7, 8, 9
- ❁ Retain the needles and exercise, 2-4 hrs
- ❁ Acute stage: daily treatment for 10 days
- ❁ Recovery stage: once or twice a week for 3 months.
- ❁ Prognosis:  
Paralysis caused by (cerebral) thrombosis recovers better than embolism and hemorrhage.  
Within first 3 months (especially within the 1<sup>st</sup> month) recovers better than chronic cases.  
Single affected area in the brain recovers better than multi-areas.

## Epilepsy

- ❁ Reduce attack duration and frequency
- ❁ Needling according to affected areas,
- ❁ Rapid manipulation or e-stim with dense-disperse waves for 20 to 30 minutes.

# Hypertension

- ❁ Temporary control of BP
- ❁ MS-1,2,5
- ❁ Mild stimulation, retain for 1 hr.



# Asthma

- ❁ Reduce wheezing and shortness of breath during acute stage
- ❁ MS-1,2, retain for 30-60 minutes, manipulate needles every 10 minutes

# Diaphragm Spasm

- ❁ MS 3, mild stimulation with deep inhale and exhale for 20 - 30 minutes.

## Frozen shoulder

- ❁ Middle section of MS-6, opposite side for one-sided and both sides for both shoulder pains. Exercises during retention