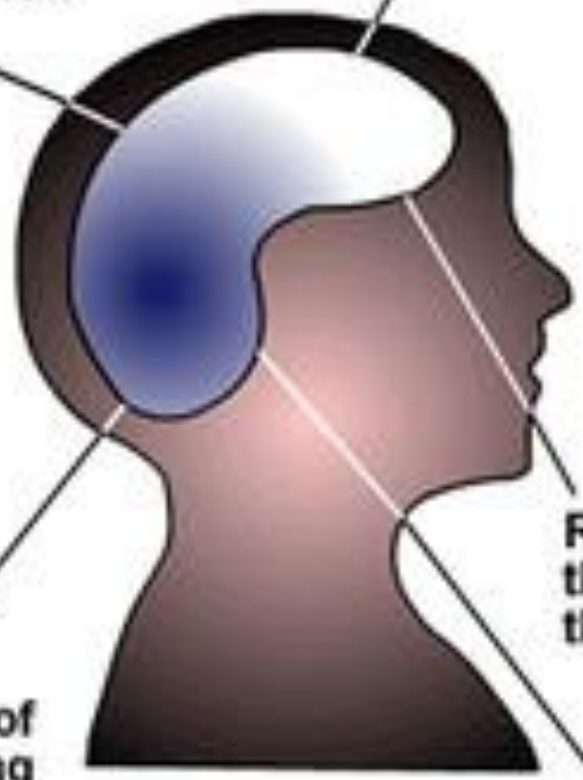
針灸核心課程
小兒腦性麻痺

腦性麻痺

- 以肢體運動功能障礙為主的多重性障礙
- 有時合併智能(75%)、語言(75%)、癲癇(40%)、視覺(25%)、聽覺(20%) 、發育障礙、情緒等多重障礙。
- 症狀包含：肢體不協調、肌肉僵硬、肌力不足、肢體顫動、吞嚥與說話困難
- 腦性麻痺是**非進行性**（不會繼續惡化）**腦病變**，
  但患者的身體功能卻可繼續惡化（如餵食困難導致的營養不良）。

Wikipedia/cerebral palsy

TYPES OF CEREBRAL PALSY



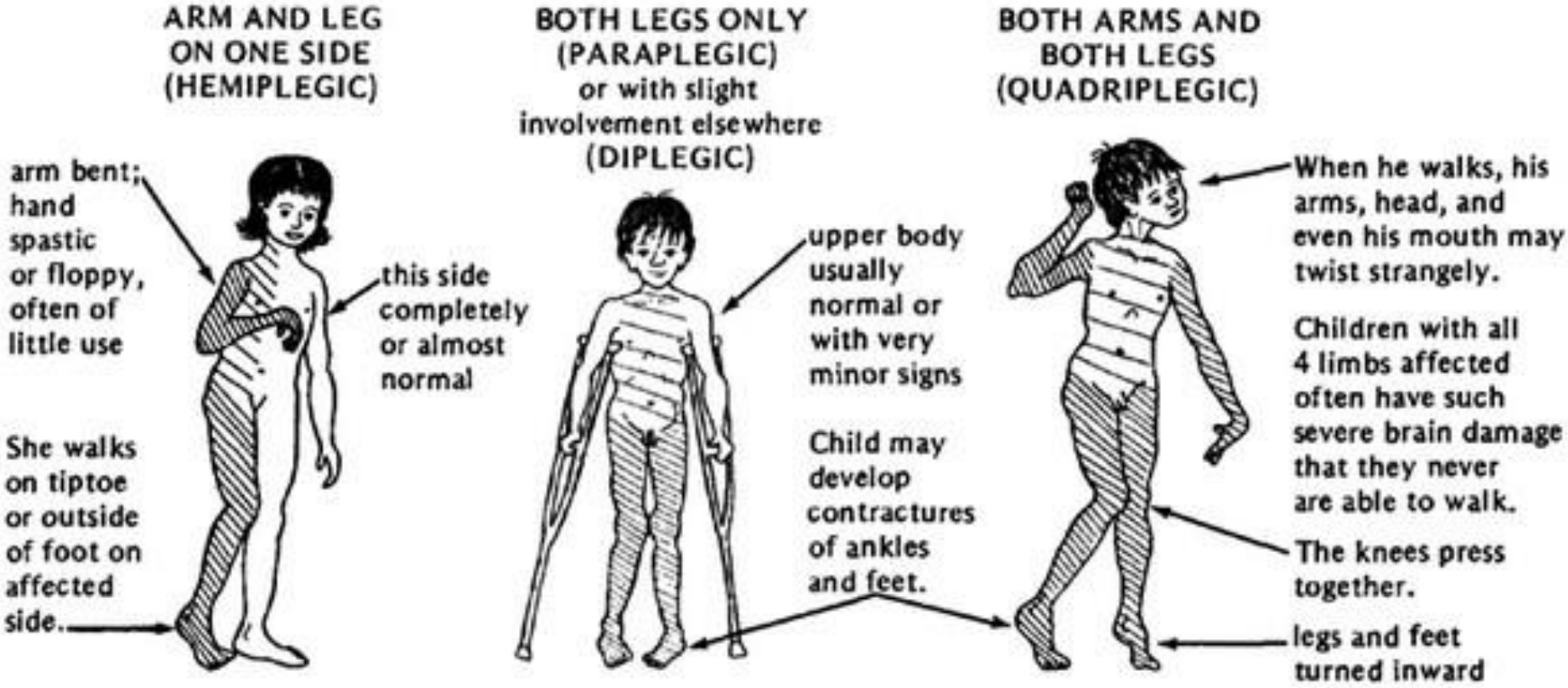
SPASTIC- tense, contracted muscles (most common type of CP).

ATHETOID- constant, uncontrolled motion of limbs, head, and eyes.

RIGIDITY- tight muscles that resist effort to make them move.

ATAXIC- poor sense of balance, often causing falls and stumbles

TREMOR- uncontrollable shaking, interfering with coordination.



- 痙攣型（50%-70%）最常見
- 大腦負責自主運動(錐體)的區域受損
  半身麻痺、下肢麻痺、三肢麻痺（通常是雙腳及一隻手）、四肢麻痺
- 屈曲肌，髖內收肌，小腿後肌較會受痙攣影響而致張力上升

2. 徐動型(12%-15%)

控制動作**統合協調**(錐體外病變)的區域受損。肌肉張力大幅變化，有不自主的跳動或緩慢的扭動，無法控制四肢與軀幹的慢速活動。很少有關節攣縮或變形產生。這類型的孩童也可能有聽覺方面的障礙而造成講話上的困難。

3. 震顫型

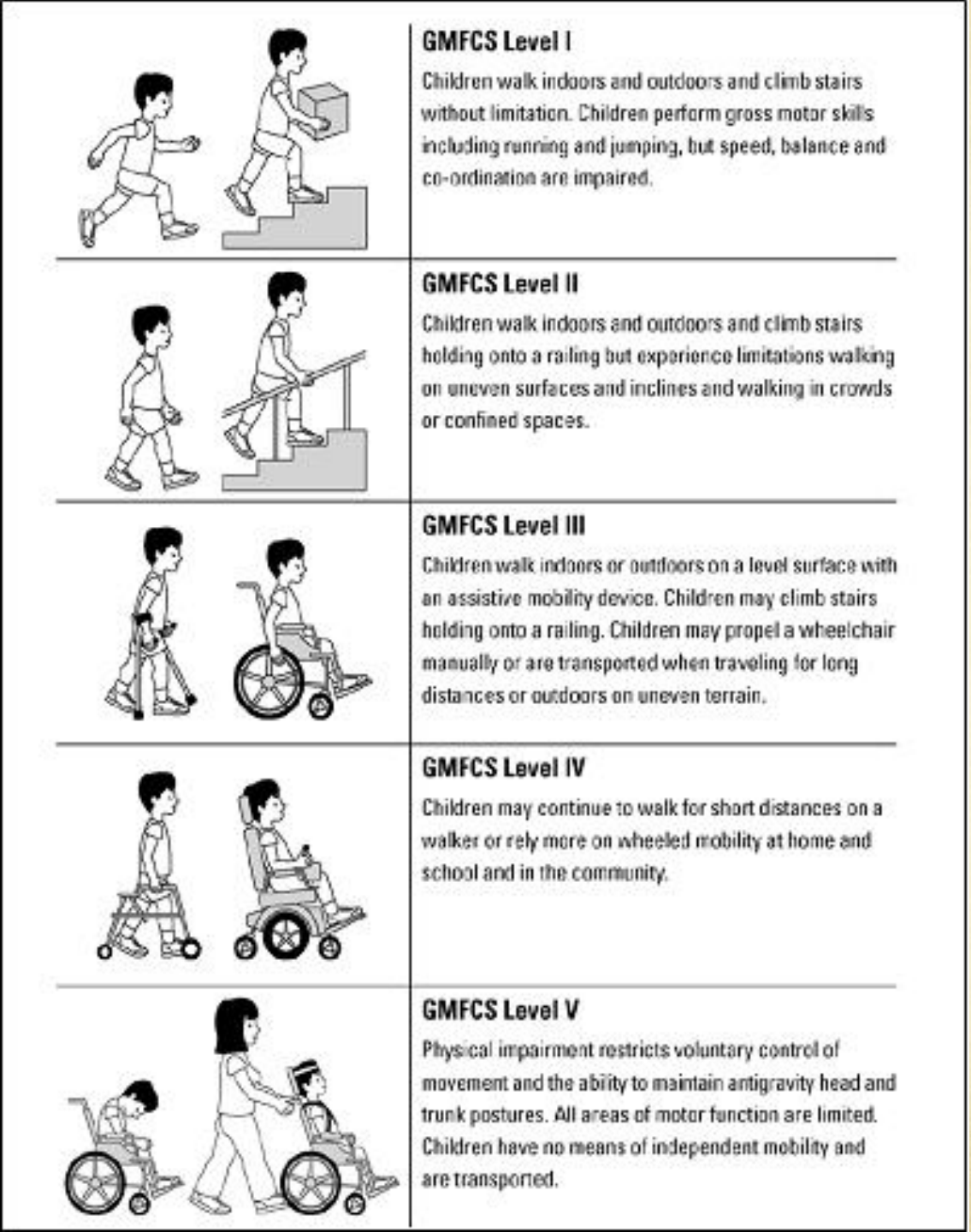
(基底核或小腦)，身體有顫抖的情況，比起徐動型來說，其運動幅度較小、較快、較有規律，缺乏平衡及協調身體的能力。

4. 低張型

患者的肌肉張力較常人低，表現乏力。走路時容易跌倒。

5. 混合型

痙攣型 + 徐動型 或 痙攣型 + 顫震型 或 低張型 + 顫震型



GMFCS Level I

Children walk indoors and outdoors and climb stairs without limitation. Children perform gross motor skills including running and jumping, but speed, balance and co-ordination are impaired.

GMFCS Level II

Children walk indoors and outdoors and climb stairs holding onto a railing but experience limitations walking on uneven surfaces and inclines and walking in crowds or confined spaces.

GMFCS Level III

Children walk indoors or outdoors on a level surface with an assistive mobility device. Children may climb stairs holding onto a railing. Children may propel a wheelchair manually or are transported when traveling for long distances or outdoors on uneven terrain.

GMFCS Level IV

Children may continue to walk for short distances on a walker or rely more on wheeled mobility at home and school and in the community.

GMFCS Level V

Physical impairment restricts voluntary control of movement and the ability to maintain antigravity head and trunk postures. All areas of motor function are limited. Children have no means of independent mobility and are transported.

粗大動作功能分類系統

- 階級I:步行未受到限制
- 階級II:步行有受限制
- 階級III:使用手持式移位輔具步行
- 階級IV:自我移動的能力受限制,可能採用電動式移位方式
- 階級V:坐在手動式輪椅上,由他人協助移動

1. 藥物治療-減低痙攣情況
2. 手術治療-減低痛楚、增強活動功能、方便家人照顧
3. 復健與輔助-協助恢復正常生活

Wikipedia/cerebral palsy

藥物治療

1. 口服肌肉鬆弛劑- 全身性肌肉放鬆。
   - 如 Diazepam, Baclofen, Dantrolene

2. 藥物注射
   - BOTOX 肉毒桿菌毒素
     - 有效期：3 - 6個月
     - 打針後，肌肉會明顯乏力，需多做運動以改善動作的控制。
   - Phenol
     - 直接注射入神經纖維，減低肌肉痙攣。
     - 打針時和打針後，打針的部位都會非常痛楚。
     - 有效期：3 – 18個月
   - Baclofen
     - 腦脊椎膜內注射，作用與口服一樣。
     - 較針對性，所需的份量較少，副作用較少。

Wikipedia/cerebral palsy

手術治療

骨科手術

1.放鬆攣縮的肌肉與肌腱，
如Selective Percutaneous Myofascial Lengthening (SPML)

2.矯正與復位，常見髖關節、肩關節、尺橈關節

神經外科手術

1.導管插入手術，治療腦水腫(V-P shunt)

2.選擇性脊椎神經後根切除手術，減低痙攣，增強功能

Wikipedia/cerebral palsy

復健與輔助

1. 製造輔具，如：腳托、鞋墊等。
2. 職能治療
3. 物理治療
4. 言語治療
5. 心理治療

Wikipedia/cerebral palsy

五硬

小兒腦性麻痺的調理治療原則

- 以膀胱經、督脈為主。
- 強調足三陽經絡心：
  - 足太陽之正，當心入散；足少陽之正，貫心以上挾咽；足陽明之正，上通於心，上循咽；手太陽之正，入腋走心，手少陰之正，屬於心。
- 認為「治痿獨取陽明」，而『陽』有耗精及傷精之意，另外有脾胃之意。

素問 痿論

- 肺熱葉焦，則皮毛虛弱急薄，著則生痿躄也
- 心氣熱，則下脈厥而上，上則下脈虛，虛則生脈痿，樞折挈，脛縱而不任地也；
- 肝氣熱，則膽泄口苦筋膜乾，筋膜乾則筋急而攣，發為筋痿；
- 脾氣熱，則胃乾而渴，肌肉不仁，發為肉痿；
- 腎氣熱，則腰脊不舉，骨枯而髓減，發為骨痿。

幼幼集成

- 五硬者，手硬，腳硬、腰硬、肉硬、頸硬也。
- 仰頭取氣，難以動搖，氣壅疼痛，連於胸膈，手心腳心，冰冷而硬，此陽氣不榮四末也，為獨陰無陽，難治。
- 若肚筋青急，乃木乘土位，俱宜六君子湯加姜、桂、升麻、柴胡，以補脾平肝；若面青而小腹硬者，不治。

- 《保嬰撮要》「若系風邪，當參驚風治之。此症從肝脾二臟受病，當補脾平肝，仍參痙症急慢驚風門治之。」

小續命湯加減治之尤良

- 《醫學綱目・小兒部・五硬五軟》：「五硬即痙之屬，經所謂(諸)暴強直，皆屬於風是也。五軟即痿之屬。」

兒科要略

- 五硬之証，既屬於骨胳過堅，筋肉失榮所致，故証之初起為津耗陰傷，漸成獨陽無陰之候，陽無陰則失所根據附，再至陰陽俱傷，元氣不續，則為不治。

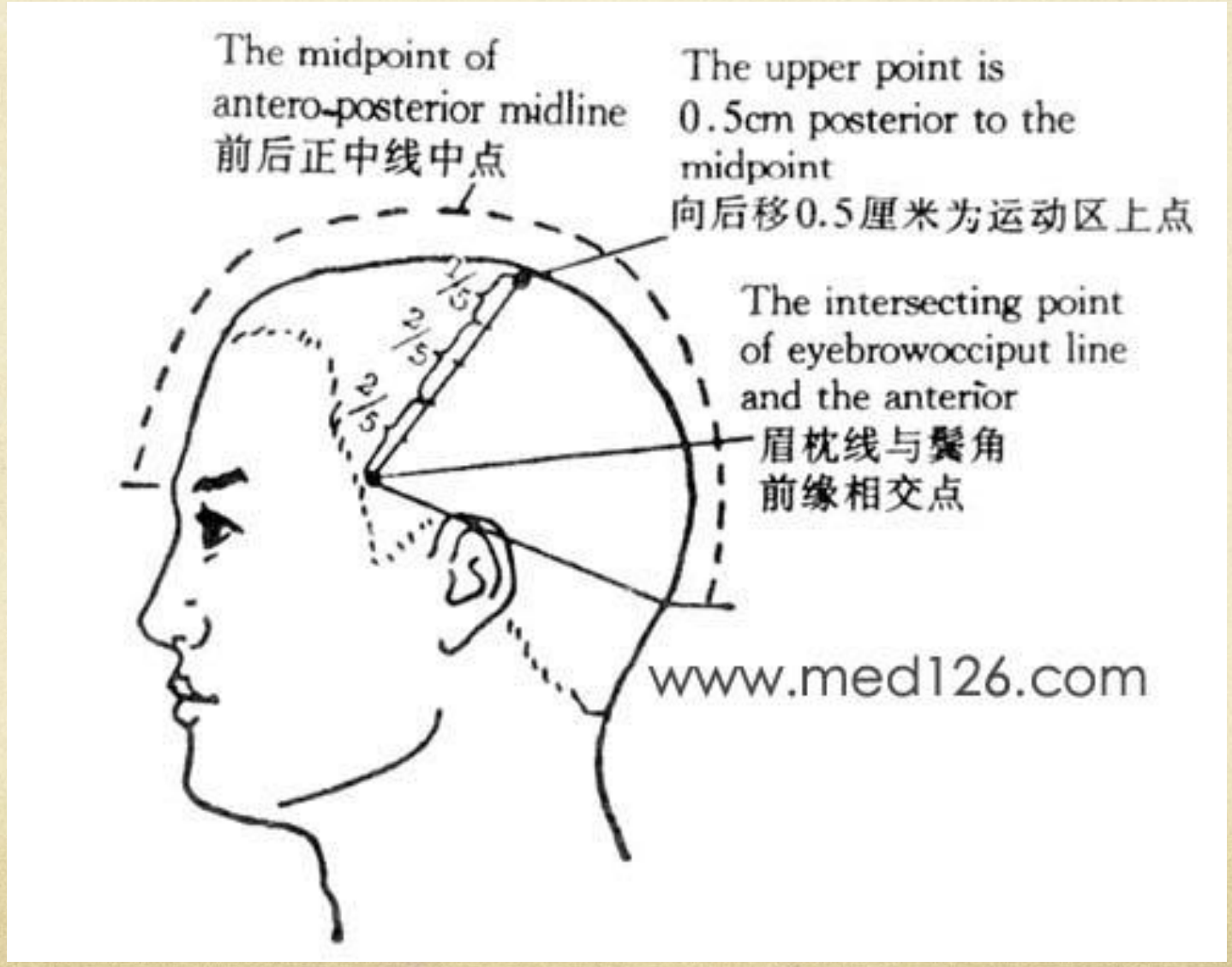
- 當初起時，宜急進養血補陰之劑，使其血足氣旺，陰陽無偏勝之患，硬症自漸歸消失。及其既成之後，則宜宣通行氣為導，庶幾使氣血得灌溉於骨胳皮肌，再加補虛扶弱之品。硬症亦可由重而輕，由輕而痊也，惟此際飲食起居之調護，最宜遵循醫者之諄囑，必須合乎攝生之法，乃能漸奏功效。

- 通治之方，有六味地黃丸及加味六君子湯，腹筋青急者宜六味丸加麥冬、五味，風邪內襲者宜小續命湯去附子。

中醫證型與西醫分型?

肝強脾弱	<·-·-·-·-·->	痙攣型
脾腎兩虧	<·-·-·-·-·->	低張型
肝腎虧虛	<·-·-·-·-·->	徐動型
	<·-·-·-·-·->	震顫型

標準頭穴線的定位


The midpoint of
antero-posterior midline
前后正中线中点
The upper point is
0.5cm posterior to the
midpoint
向后移0.5厘米为运动区上点
The intersecting point
of eyebrowoccipiut line
and the anterior
眉枕线与鬓角
前缘相交点
1/5
2/5
2/5
www.med126.com

- 語言障礙：語言一區、語言二區、語言三區、金津、玉液、廉泉、上廉泉。
- 視力障礙：視區、陽白、攢竹、瞳子髎
- 智能低下：百會、風池、四神聰、智三針
- 共濟失調：平衡區、風池
- 四肢拘攣或癱瘓：顳三針

- 針灸治療以「靳三針」(頭皮針)為主
- 四神針、智三針主治智力低下，促進大腦發育；
- 顳三針主治四肢拘攣或癱瘓
- 腦三針主治共濟失調。

- 體針

- 不留針(半刺)，單次治療僅需三至五分鐘，每週三次，廿次為一療程，休息一週後，繼續下一療程。

- 眼球內斜視：太陽、絲竹空
- 口角流涎：上廉泉、地倉、承漿、人中
- 吞嚥困難：上廉泉、天突
- 語言障礙：風府、啞門、通里
- 聽力障礙：翳風、聽宮、聽會、腎俞、太溪
- 二便失禁：腎俞、八髎、中極、關元、氣海

- 項軟不舉：天柱、大椎、風池
- 上肢癱瘓：肩腮、肩髃，肩貞、曲池、肘髎、手三里、外關、中渚、後谿
- 腰軟癱：命門、腰陽關、脾俞、腎俞、華佗夾脊
- 下肢癱瘓：秩邊、環跳、髀關、風市、陽陵泉、足三里、絕骨、三陰交、丘墟、委中、太衝、足臨泣
- 剪刀步：風市、髀關、解谿、陽陵泉、懸鐘、丘墟
- 足外翻：陰陵泉、三陰交、太溪、照海
- 足內翻：陽陵泉、懸鐘、丘墟、昆崙

針灸大人 和 兒童 不同

- 很難合作
- 發育中　Posterior fontanel 6-8 wk/o
- Anterior fontanel 16-18 wk/o
- Scalp suture 6-8 month/o
- 不能自己表達 eg: 太深
- 多重障礙

從通督補腎健脾論小兒腦癱的中醫康復治療

- 通督：痰瘀阻滞督脈, 氣血難以上行腦海, 宜予醒神開竅湯加減, 此湯以石菖蒲、天竺黃為君藥以豁痰開竅, 臣以丹參、 牛膝、 全蠍、天麻以通絡止痙, 木香、 茯神、 合歡花、 珍珠母以安神定驚, 予何首烏補肝腎、 益精血, 佐以砂仁以理氣和胃, 益智仁以醒腦益智, 並以麝香、牛黃等芳香走竄之品引經上行, 開竅醒神。 針灸上, 取患兒所癱瘓之肢體的手足陽明經、膀胱經等穴位, 並配合膈腧、 血海等穴位遠道取穴。另針刺“督 脈十三針” 起到通督健腦、 安神定志之作用。“督脈十三針” 為著名針灸大師王樂亭所創立, 包含督脈上百會、 風府、 大椎、 陶道、 身柱、 神道、 至陽、 筋縮、 脊中、 懸樞、 命門、 腰陽關、 長強等 13 個穴位, 針刺時可采用平補平瀉手法, 小於 3歲及體弱兒不留針。 3 歲以上患兒留針 30 min。 每 周針刺2次, 每針灸6次, 休息15d, 針灸18次 為1個療程。 輕度腦癱患兒治療1~2個療程, 重 度腦癱患兒治療 2 ~ 3 個療程。 按摩上一方面可予 通督按摩法, 施術者從起始穴長強穴開始上推督 脈, 重點按揉督脈十三穴, 循經推拿 5 ~ 7 次以和 陰陽, 補氣血, 培元氣。

- 另一方面可予健腦益智按摩法。 主要選 取神庭、 本神、 四神聰、 頭維、 上星、腦戶、 啞 門、風池、神門、通裡、內關、勞宮、廉泉、膻中、 中脘、 關元、氣海等穴位。 每次 20 ~ 30 min, 每日 1 次。

劉振寰, 田慧, 李諾 (廣州中醫藥大學附屬南海婦產兒童醫院)
2013 年 9 月第 30 卷第 5 期 廣州中醫藥大學學報

八脉交会穴在小儿脑性瘫痪针灸治疗中的应用原理初探

叶华
(西安医学高等专科学校 陕西西安 710309)

- 列缺配照海

上肢張力，足內翻。金水相生

- 後溪配申脈

關節攣縮，肌張力高，足外翻

- 公孫配內關

肌張力低下，內側肌群張力

- 外關配足臨泣

肩抬舉無力，腰部無力

統計中國期刊全文資料庫(CNKI) 內2003 年1月至2012 年12 月間與針刺治療小兒CP 相關的文獻。

表1　运用频率前10位腧穴统计分析

穴位	文献	特定穴
合谷	42	原穴
足三里	40	五输穴、胃腑下合穴
曲池	37	五输穴
三阴交	34	足太阴、厥阴、少阴经交会穴
阳陵泉	27	五输穴、八会穴
外关	25	络穴，八脉交会穴 通阳维脉
风池	24	足少阳经、阳维脉交会穴
肾俞	22	背俞穴
百会	21	督脉与足太阳、足厥阴经交会穴
太冲	21	五输穴、原穴
环跳	21	足少阳、足太阳经交会穴
肩髃	21	手阳明与阳跷脉交会穴
解溪	20	五输穴
内关	20	络穴、八脉交会穴 通阴维脉

用穴規律

1.治癱取**四肢陽經穴**為主。合谷、曲池、足三裡均屬陽明。陽明為多氣多血之脈，「治痿獨取陽明」

2.多取**關節部**的穴位。
如太沖，環跳，肩髃、解溪

3.**通經與補虛**並行

4.均為**特定穴**。
常用穴涉及的特定穴類屬有原穴、絡穴、五輸穴、下合穴、八脈交會穴、八會穴、交會穴等

30

針刺治療小兒腦癱常用穴規律探析/趙彩嬌等/湖北中醫雜誌2014 年03 月第36 卷第03 期

J Altern Complement Med. 2010 Apr;16(4):375-95. doi: 10.1089/acm.2009.0609.

Traditional Chinese Medicine for treatment of cerebral palsy in children: a systematic review of randomized clinical trials.

Zhang Y[1], Liu J, Wang J, He Q.

Author information

Abstract

OBJECTIVE: The objective of this study was to systematically evaluate the effects of Traditional Chinese Medicine (TCM) therapy including acupuncture, tu'ina, oral herbal medicine, herbal bathing, and collateral-channels conduct therapy for treating children with cerebral palsy (CP).

METHODS: We included randomized controlled trials (RCTs) on TCM for children with CP. We searched the China National Knowledge Infrastructure, Database for Chinese Technical Periodicals, Chinese Biomedical Literature Database, databases of Chinese biomedical journals/Chinese Medical Current Contents, Wan Fang Data, PubMed, MEDLINE, Embase, and the Cochrane Library until the end of July 2009, and searched the reference list of retrieved papers. Data were extracted by 1 author and checked for validation by another author, and data were analyzed using RevMan 4.3.2. Only one meta-analysis was performed due to the heterogeneity among the trials.

RESULTS: Thirty-five (35) RCTs involving 3286 children with CP using TCM therapy and conventional therapy (CT) including physical, occupational, and speech therapy, hyperbaric oxygen, cranial nerves nutrition agents, or any combination of above were included. The methodological quality was generally low in terms of allocation concealment, blinding, and intention-to-treat analysis. Meta-analysis showed acupuncture combine with CT improved activities of daily living (mean difference: 6.38, 95% confidence interval 5.15-7.61; $p < 0.00001$, $n = 160$) compared with CT alone. Acupuncture plus tu'ina, or plus herbal medicine and CT showed significant beneficial effects on comprehensive function in terms of both physical and mental aspects, independence, and verbal function compared with CT alone. The combination of radix Astragali injection with CT showed significant benefit on gross motor function and social behavior adaptation comparing with CT. There are six trials reported adverse events that were not associated with acupuncture, tu'ina, and/or herbal medicine.

CONCLUSIONS: Acupuncture with or without CT or other conventional therapy, tu'ina, herbal medicine, and collateral channels conduct treatment combined with CT may have benefit in children with CP. However, due to insufficient evidence, further rigorous trials are warranted.

PMID: 20423208 [PubMed - indexed for MEDLINE]

- 針灸合併傳統治療可加強改善日常活動功能
- 針灸加推拿或針灸加中藥，合併傳統治療可改善智能，語言及物理活動

Zhongguo Zhong Xi Yi Jie He Za Zhi. 2015 Feb;35(2):151-6.

[Effect of acupuncture on early cerebral palsy infants with parafunctional sitting position: a multi-centre, randomized, control research].

[Article in Chinese]

Zhang HY, Sun QY, Yang KP, Chen YX, Wang Q, Wang X, Liu Y.

Abstract

OBJECTIVE: To study the clinical effect of development theory based acupuncture on early cerebral palsy (CP) infants with parafunctional sitting position.

METHODS: Totally 120 early CP infants were randomly assigned to two groups equally, the treatment group and the control group. All received acupuncture combined with training rehabilitation. Patients in the treatment group adopted acupuncture based on infants development theory, while those in the control group were treated by head acupuncture. Sitting functional points in Gross motor function measure (GMFM) 88 were observed in different groups and infant patients of various types before and after treatment. Root mean square (RMS) signals of sitting correlated muscles (latissimus dorsi, erector spinae, rectus abdominis) were recorded by surface electromyography (sEMG). The effective rate was evaluated by Nimodipine method.

RESULTS: Compared with before treatment, sitting functional points were significantly improved in the two groups ($P<0.01$). After treatment, it was higher in the treatment group than in the control group ($P<0.01$). The advance amplitude was higher in CP infants of the spastic type and the hypotonic type than other types ($P<0.01$). Along with sitting process, latissimus dorsi RMS signals were gradually tapered, erector spinae RMS signals were gradually enhanced, and rectus abdominis RMS signals were slightly weakened. Compared with the control group, latissimus dorsi RMS signals obviously decreased, and erector spinae RMS signals obviously increased in the treatment group after treatment (all $P<0.01$). The total effective rate was higher in the treatment group than in the control group (89.29% vs. 77.78%, $P<0.05$).

CONCLUSION: Infants development theory based acupuncture could effectively elevate dorsi-extensor muscles force, improve sitting position of 8 months to 1 year old CP infants with parafunctional sitting position.

PMID: 25881458 [PubMed - in process]

對於八個月到一歲的腦性麻痺幼兒，
針刺療法可以增強闊背肌力，改善坐姿

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[Effect of acupuncture combined language training on cerebral palsy children with language retardation].

[Article in Chinese]

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Abstract

OBJECTIVE: To observe effects of acupuncture combined speech therapy for cerebral palsy children with linguistic retardation.

METHODS: Totally 132 cerebral palsy children were randomly assigned to the speech training group (Group A, 44 cases) and the routine acupuncture combined speech training group (Group B, 44 cases), and the acupuncture combined speech training group (Group C, 44 cases). Patients in Group A received one to one training including game therapy, therapy of communication attitudes, and so on. Those in the other two groups were needed at Baihui (GV20), Sishencong (EX-HN1), the first language zone, the second language zone, and the third language zone. Those in Group B were treated with electric needling and then speech training. Those in Group C were treated with language training, while needling with needle maintaining for 40 min. All patients were treated once daily, 5 times per week, 20 times as one course of treatment, 6 courses in total. The efficacy was assessed using S-S phonetic speech developmental retardation examination (CRRC version). The development quotient (DQ) was observed referring to the Gesell intellectual development scale before treatment, after 3 and 6 treatment courses.

RESULTS: Compared with Group A (the total effective rate: 51.3%, DQ value: 58.1 +/- 13.3), better effects were obtained in Group B (the total effective rate: 77.5%, DQ value: 60.4 +/- 13.5) and Group C (the total effective rate: 81.0%, DQ value: 64.0 +/- 11.6) (all $P < 0.05$). There was no statistical difference in the total effective rate or post-treatment DQ value between Group B and Group C ($P > 0.05$).

CONCLUSION: Acupuncture combined speech therapy showed obvious effects on cerebral palsy children with linguistic retardation.

針灸治療配合語言復健

治療合併語言障礙的腦性麻痺兒童有明顯效果