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Aiguille de feu

1. Présentation



Wang 191807.



Nguyen 1980

Il s'agit d'une grosse aiguille dont l'usage est particulier, il faut d'abord la chauffer et la porter au rouge, avant de l'introduire à l'emplacement choisi. Cette méthode est décrite dans le Nei Jing et les médecins antiques l'ont utilisée pour traiter les furoncles et les Léi Li [Le vide des reins et des poumons, le blocage prolongé de l'énergie du foie créent le « Feu du vide » qui brûle l'intérieur et coagule les liquides, alors les énergies perverses — vent et chaleur — pénètrent et provoquent des adénopathies axillaires, cervicales, inguinales, sans chaleur ni douleur locale vive (abcès froids), les Lei Li (Roustan 1984).

2. Histoire

- Liu T, Zhu JP, Zhang QC. [Textual research on the fire needle and the fire needle therapy]. Zhonghua Yi Shi Za Zhi. 2016;46(2):78-82. [186355].

There are different names of the fire needle therapy in the Huang di nei jing (Inner Canon of Huangdi) such as Zu-zhen (灸), Cui-zhen (灸), Fan-zhen (灸), Huo-cui (灸), Cui (灸), Cuici (灸), Fan zhen jie ci (灸). It is claimed that the lance needle, the round sharp needle and the long needle recorded in this Classic are puncturing tools for the fire needle therapy. In the Eastern Han Dynasty, Zhang Zhongjing expanded the indications for the fire needle therapy and Huo-zhen (灸) firstly appeared in the Jin kui yu han jing (Classic of the Jade Box and Golden Chamber). The application of the fire needle therapy had been further expanded to a lot of internal and external disorders from the Wei-Jin-Southern and Northern Dynasties to the Ming and Qing Dynasties. There are more detailed records on the manipulation and the tools of the fire needle therapy during this period. In the 1970s, Huo zhen liao fa (灸) was proposed. There are different names of the fire needle therapy in the Huang di nei jing (Inner Canon of Huangdi) such as Zu-zhen (灸), Cui-zhen (灸), Fan-zhen (灸), Huo-cui (灸), Cui (灸), Cuici (灸), Fan zhen jie ci (灸). It is claimed that the lance needle, the round sharp needle and the long needle recorded in this Classic are puncturing tools for the fire needle therapy. In the Eastern Han Dynasty,

Zhang Zhongjing expanded the indications for the fire needle therapy and Huo-zhen (火针) firstly appeared in the Jin kui yu han jing (Classic of the Jade Box and Golden Chamber). The application of the fire needle therapy had been further expanded to a lot of internal and external disorders from the Wei-Jin-Southern and Northern Dynasties to the Ming and Qing Dynasties. There are more detailed records on the manipulation and the tools of the fire needle therapy during this period. In the 1970s, Huo zhen liao fa (火针疗法) was proposed and still in use today. However the Bai-zhen (plain needle) in ancient literature is equal to the filiform needle and should not be regarded as the former name of the fire needle.

3. Methode

3.1. Instrument

- Huô Zhén est une grosse aiguille de bronze ou d'acier inoxydable, longue de 3 à 4 cun (pouce) ; son diamètre est de 0,5 à 1 mm. On utilise des aiguilles de forme différente selon la profondeur de piqûre à atteindre et le choix de piqûre, simple ou multiple (Roustan 1984).
- Pour la piqûre simple, l'aiguille utilisée ressemble à l'aiguille ordinaire Hào Zhén, mais son manche est enveloppé de bambou (Roustan 1984).
- Pour la piqûre multiple, superficielle, l'aiguille est courte et fine, son manche est de bois, ceci rend plus aisé le Kòu Cì (frapper à répétition). Pour renforcer la stimulation, on dispose fréquemment 3 à 9 aiguilles d'acier sur un manche de bois, ce qui prend la forme du Pí Fù Zhén (Roustan 1984).

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Technique

- Méthode de piqûre profonde : la plus souvent utilisée en pathologie externe, furoncles, Lei Li, Dà Jiào Fèng (éléphantiasis). Lorsque l'on désire expulser du pus, l'aiguille doit être grosse mais, dans le cas de gonflements fermes et solides dus au syndrome Yin Zheng) on utilise, au contraire, une aiguille fine afin de disperser. Dans les deux cas, le corps de l'aiguille est chauffé au rouge sur une lampe à alcool, on puncture ensuite rapidement l'endroit affecté et on ôte l'aiguille immédiatement. On presse ensuite avec du coton sur la partie traitée (Roustan 1984).
- Méthode de piqûre superficielle : pour le traitement des algies rhumatismales ou des dermatoses, par exemple : mycoses cutanées, on fait chauffer le corps de l'aiguille de la même façon, jusqu'au rouge, puis on frappe légèrement la peau à l'aide de cette aiguille (Kòu Cì). Dans les cas d'algies rhumatismales ou d'engourdissements (avec téguments froids), une aiguille utilisée superficiellement en piqûre légère et simple suffit. Dans les cas de mycoses cutanées, utiliser plusieurs aiguilles (Pí Fù Zhén) (Roustan 1984).
- Remarques
 1. L'utilisation de Huô Zhén dans les punctures profondes exige une grande prudence. Il faut, en particulier, veiller à n'introduire l'aiguille qu'à la profondeur utile et à ne pas atteindre les vaisseaux ou organes sous-jacents ce qui serait particulièrement dangereux.
 2. Pour les punctures superficielles, il faut veiller à ne pas frapper fort, mais régulièrement et doucement, il faut aussi éviter les éventuelles écorchures de la peau

<https://www.youtube.com/watch?v=8JeDAFKgvWQ>

4. Indications

5. Evaluation

5.1. Acné

Luo Xiao-zhou, Li Ke-song, Tang Chun-zhi, Zhang Bin. Efficacy of fire-needle for acne: a systematic review and meta-analysis of randomized controlled trials World Journal of Acupuncture-Moxibustion. 2017;27(2):77-84. [52074].

Objective	To evaluate the efficacy of fire-needle therapy for acne to provide an objective basis for clinical decisions.
Method	PubMed, Chinese Biomedical Medicine disc (CBM), Chinese National knowledge infrastructure (CNKI), and Wanfang database were searched to include eligible randomized controlled trials. Bias risk was assessed and data were extracted. Meta-analysis was performed and as was subgroup analysis.
Results	Thirty-three RCTs involving 3362 patients were included. Most of them had a high risk or unclear risk of bias regarding allocation concealment, incomplete outcome data and selective reporting. Compared with control groups, meta-analysis revealed that fire needle therapy had an overall higher total effectiveness rate (RR=1.19, 95% CI:1.16-1.22, P<0.0001). Subgroup analysis showed fire-needle therapy was associated with an increased total effective rate (RR=1.20, 95% CI:1.14-1.28, P<0.0001), when compared against drug therapy. Fire-Needle therapy was associated with an increased total effective rate (RR=1.18, 95% CI:1.12-1.24, P<0.0001), when fire-needle plus other TCM therapy was compared against other therapy. fire-needle therapy was associated with an increased total effective rate (RR=1.18, 95% CI:1.13-1.24, P<0.0001), when fire-needle plus Chinese herb therapy was compared against Chinese herb therapy alone. Fire needle therapy was associated with an increased total effective rate (RR=1.28, 95% CI:1.18-1.39, P<0.0001), when compared fire-needle plus Western drug therapy against western drug therapy alone. Adverse events were not reported in most articles.
Conclusion	Our study showed that fire-needle appears to be an effective therapy for treating acne , but the evidence is currently insufficient due to the poor quality of the studies. The safety of fire-needle therapy is also uncertain due to the small sample size and the lack of reporting in included articles. Larger sample, higher quality studies are needed.

5.2. Eczéma

Xu Shan et al. [Meta Analysis of Fire Needle in the Treatment of Eczema] Journal of Clinical Acupuncture of Moxibustion. 2017;33(5):55-60. [170001].

Objective	To evaluate the efficacy and safety of fire needle therapy in treating eczema.
Methods	The clinical articles involved in PubMed, Medline, CNKI, CBM, Wanfang and VIP databases were searched by electronic and manual retrieval. The researching quality was evaluated by Cochrane handbook 5.1.0 and data were analyzed by Review Manager (RevMan) 5.3.

Results	A total of 12 trials involving 785 patients were included. Meta analysis showed that the difference in total effective rate between fire needle group and western medicine group was significant (RR =1.23,95% CI [1.12,1.36]);the difference between fire needle combined with moxibustion group and western medicine group was significant (RR =1.17,95% CI[1.03,1.33]);the differences between fire needle combined with western medicine group and western medicine alone group,and between combination of fire needle with acupuncture therapy and acupuncture therapy were significant.The difference EASI score between fire needle therapy and western medicine group was significant (MD =-2.06,95% CI[-2.91,-1.21]);the difference between fire needle combined with pricking blood therapy and western medicine group was significant (MD =-1.89,95% CI [-3.17,-0.61]);the difference between fire needle combined with moxibustion therapy and western medicine group was significant (MD =-1.16,95% CI [-2.09,-0.22]).The difference of VAS score between fire needle therapy and western medicine group,and combination of fire needle with pricking blood therapy and western medicine group were significant.
Conclusion	Fire needle therapy has certain superiority and are safe in treating eczema.The quality of medical literatures included is not so high,so the conclusion needs to be further verified by enlarged sample from multicenter with double-blind controlled clinical trials.

5.3. Psoriasis

- Xu J, Zhou Q, Xie F, Cao Y, Yang X, Tao M. Effect of fire needle combined with traditional Chinese medicine on psoriasis: A systematic review and meta-analysis. *Medicine (Baltimore)*. 2024 Feb 16;103(7):e35832. <https://doi.org/10.1097/MD.00000000000035832>

Background	The mechanism of action of fire acupuncture and Chinese medicine in psoriasis is unclear. In this paper, the efficacy of the 2 therapies was compared through a comprehensive analysis of their recurrence rates for clinical reference.
Methods	In this meta-analysis, we searched PubMed, Embase, Cochrane Library, CNKI, Wanfang, CQVIP, and CBM data from the establishment of the databases to May 2023. The study proposed to use randomized controlled trial research methods, excluding published literature, unpublished literature, literature with incomplete or inadequate information, animal experiments, literature reviews and systematic studies. Data were processed using STATA 15.1 software.
Results	Our group previous study found that the clinical efficacy of the fire-acupuncture group was significantly improved compared to that of Chinese herbal medicine alone (RR = 1.20, 95% CI: 1.13-1.27). Also, there were significant reductions in Psoriasis Area and Severity Index (PASI) score (SMD = -1.04,95% CI: -1.48 to -0.60), area of skin damage (SMD = -0.40,95% CI: -0.75 to -0.04), and pruritus (SMD = -1.04,95% CI: -1.32 to -0.76). Our previous study found that Dermatology Life Quality Index (DLQI) was significantly lower in the fire acupuncture group compared to herbal medicine alone (SMD = -1.61,95% CI: -3.08 to -0.15). The combined analysis found that the recurrence rate was significantly lower in the fire-acupuncture group compared to herbal medicine alone (RR = 0.21,95% CI:0.07-0.60).
Conclusion	Fire needle can improve the efficacy of TCM in the treatment of psoriasis, including the area, severity and itching of skin lesions, and reduce the recurrence rate, which is worthy of clinical promotion.

- Li Meihong. [Meta analysis of effectiveness of fire acupuncture in treatment of psoriasis vulgaris]. *Shaanxi Journal of TCM*. 2020. [212938].

Objective	The clinical effectiveness of fire acupuncture in the treatment of psoriasis vulgaris was analyzed by Meta analysis.
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Methods	To collect the randomized controlled trials of fire acupuncture therapy for psoriasis vulgaris in the past 20 years, and each included study was evaluated for quality and risk of bias by two researchers in accordance with Cochrane manual 5. 1. 0, and RevMan 5. 3 was used to assess the risk of quality and bias of each included study. Consolidated analysis of the research in accordance with the requirements of the software.
Results	There were 12 studies with 1, 088 patients with psoriasis vulgaris. Meta analysis results showed that the difference between fire acupuncture treatment and the control group was statistically significant, and the heterogeneity test indicated that there was slight heterogeneity between the two groups ($I^2 = 10\%$); the total effective rate of OR (95% CI)=2. 42 (1. 75, 3. 35), the effective rate of the intervention group was higher than that of the control group, and there was significant difference ($P < 0. 01$).
Conclusion	The results of literature study showed that fire acupuncture had obvious advantages in the treatment of psoriasis vulgaris compared with routine treatment.

- Wang Xingxing, Wu Qing, Ma Xiaohong, Jing Huiling. [Meta Analysis on Efficacy and Safety of Fire Acupuncture in the Treatment of Psoriasis Vulgaris]. Journal of Clinical Acupuncture and Moxibustion. 2019;35(11):53. [203718]. [DOI](#)

Objective	To evaluate the efficacy and safety of fire acupuncture in the treatment of psoriasis vulgaris.
Methods	Clinical controlled trials were retrieved in the databases of CNKI, Wanfang, VIP, Chinese biomedical literature and Pubmed from Jan. 1996 to Oct. 2018. RevMan5. 3 software provided by Cochrane collaboration was used for the analysis.
Results	A total of 17 randomized controlled trials (RCTs) were included. The quality of literature was relatively low, with a total of 1, 607 participants (795 in the control group and 812 in the treatment group). Meta analysis showed that the effective rate was better in the treatment group than that in the control group (OR =3. 06, 95% CI (2. 19, 4. 28), $Z = 6. 56$, $P < 0. 001$). The PASI score was analyzed in 11 studies, and the results showed that the improvement of PASI score in the fire acupuncture was better than that of the control group (WMD = -2. 65, 95%CI(-3. 92, - 1. 37), $Z = 4. 06$, $P < 0. 001$). Three studies were conducted to compare the recurrence rate. The results showed that the recurrence rate of the fire acupuncture group was lower than that of the control groups (OR = 0. 32, 95% CI(0. 17, 0. 60), $Z = 3. 53$, $P < 0. 05$). Adverse reactions were compared in 10 studies, and the results showed that the adverse reactions in the fire acupuncture group were lower than those in the control group (OR =0. 54, 95% CI(0. 32, 0. 93) , $Z = 2. 23$, $P < 0. 05$).
Conclusion	Fire acupuncture is effective for psoriasis vulgaris with high safety.

5.4. Zona

- Li Dong, Mo Zhuo-mao, Zhang Ren-wen, et al. Is fire needle superior to Western medication for herpes zoster? A systematic review and meta-analysis. Journal of Acupuncture and Tuina Science. 2019;17(5):312. [202781].

Objective	To compare the effectiveness of fire needle versus Western medicine in the treatment of herpes zoster.
Methods	Randomized controlled trials comparing fire needle with Western medicine in the treatment of herpes zoster were identified using 8 databases. A meta-analysis was performed using RevMan 5.3 software.

Results	Eight trials involving 569 patients were included in this meta-analysis, and the results showed that fire needle was superior to Western medicine comparing the effective rate [risk ratio (RR)=1.13, 95% confidence interval (CI): 1.06 to 1.20; P=0.0002], the visual analog scale (VAS) score [mean difference (MD)=-7.95, 95% CI: -10.71 to -5.20; P<0.00001], time of pain disappearance (MD=-7.61, 95%CI: -9.38 to -5.84; P<0.00001), time of blister-stop (MD=-1.34, 95%CI: -1.51 to -1.18; P<0.00001), time of crusted scab (MD=-2.92, 95%CI: -3.62 to -2.23; P<0.00001), and time of scab off (MD=-4.64, 95%CI: -5.83 to -3.46; P<0.00001). In addition, a significantly lower incidence of postherpetic neuralgia was found in the fire needle group in 30 d (RR=0.23, 95%CI: 0.11 to 0.51; P=0.0002) and 60 d (RR=0.33, 95%CI: 0.12 to 0.91; P=0.03) after treatment.
Conclusion	Fire needle has a favorable effect in increasing the effective rate, relieving pain, recovering skin lesions and decreasing incidence of postherpetic neuralgia in the treatment of herpes zoster. However, considering the limitations in this study, the findings should be interpreted cautiously.

- Wang JX, Zhao WX, Zeng JC, Liu K, Li QJ, She YL, Lin GH. [Systematic review and sequential analysis on treatment of herpes zoster pain mainly by fire needle therapy]. *Acupuncture Research*. 2019;44(9):677-85. [201917].

Objective	To assess the therapeutic effect and safety of fire needle therapy in the treatment of herpes zoster pain.
Methods	We collected randomized controlled trials about treatment of herpes zoster pain mainly by fire needle therapy (published from the date of establishment of each database to Dec 1 of 2018) from databases of CNKI, Wanfang, VIP, Chinese Biomedical Document Service System (SinoMed), PubMed, Embase, Cochrane Library by using key words of "fire needle" "burnt needle" "red-hot needle" "herpes zoster" "postherpetic neuralgia" and "herpetic neuralgia". Then, we conducted Meta-analysis and sequential analysis about the outcomes of studies met our inclusion criteria using RevMan5.3.5 and TSA0.9.10 Beta softwares and employed GRADE profiler 3.6.1 to grade the quality of evidence.
Results	A total of 25 studies including 2 024 patients were brought into the present analysis. Outcomes of the qualitative analysis indicated that the fire needle therapy has a higher effective rate than the western medicine group. Meta-analysis showed that after the treatment mainly with fire needle therapy, 1) the VAS score is evidently lower [WMD=-0.96, 95% CI(-1.22, -0.71), P<0.000 01], 2) the duration of 30% pain relief is obviously shorter [WMD=-1.82, 95% CI (-2.46, -1.18), P<0.000 01], 3) the duration of pain is evidently shorter {fire needle combined with electroacupuncture [WMD=-11.53, 95% CI(-14.57, -8.48), P<0.000 01]; fire needle combined with cupping [WMD=-4.75, 95% CI (-7.99, -1.51), P=0.004]; pure fire needle therapy [WMD=-1.82, 95% CI (-2.46, -1.18), P<0.000 01], and 4) the occurrence rate of post-herpetic neuralgia is considerably lower [RR=0.16, 95% CI (0.09, 0.30), P<0.000 01]. The occurrence and management of adverse events were not mentioned in all the included studies, suggesting no safety problem of the therapy, but the publication bias has not been taken seriously.
Conclusion	In the treatment of herpes zoster pain, fire needle as the main treatment approach can significantly relieve pain, shorten the pain duration, and reduce the incidence of post-herpetic neuralgia.

- Zhao Nanqi , Lily Lai, Xiao Wang, Liyan Jia, Jianping Liu. Fire needling for herpes zoster: A systematic review and meta-analysis of randomized clinical trials. *Journal of Traditional Chinese Medical Sciences*. 2019;6(1):3-12. [197254].

Objective	To evaluate the effectiveness and safety of fire needling for herpes zoster from randomized clinical trials (RCTs).
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Methods	We searched Cochrane Central Register of Controlled Trials, Pubmed, Sino-Med, CNKI, VIP, WanFang databases, and conference proceedings to November, 2017. RCTs were eligible if they tested fire needling for treating herpes zoster more than 3 times. Two authors screened all references, assessed the risk of bias, extracted data, independently, and analyzed data using Trial Sequential Analysis (TSA). Treatment effects were presented as risk ratio (RR) for binary data and standardized mean difference (SMD) for continuous data with 95% confidence interval (CI).
Results	We included 27 RCTs with a total of 1933 participants. Only one RCT had low risk of bias, and the others were of high or moderate risk of bias. For total effectiveness rate (proportion of total number of people who were cured or significant symptom improved), there was no significant difference between Western medicine (acyclovir, valacyclovir, adenosine cobalamin) and fire needling (risk ratio 1.05, 95% CI 0.98 to 1.12; n = 5). For pain relief (VAS scale): fire needling used alone showed lower scores than Western medicine (SMD -1.37, 95% CI -1.77 to -0.97; n = 2) or external medicine (diclofenac) (SMD -2.23, 95% CI -2.81 to -1.64; n = 1). Combination of fire needling and Western medicine was better than Western medicine alone in relieving pain (VAS scale) (SMD -2.19, 95% CI -3.40 to -0.97, I ² = 94%; n = 4). Patients receiving fire needling had lower incidence of neuralgia than those receiving Western medicine (3.3% vs 26.7%, RR 0.09, 95% CI 0.01 to 0.82; n = 1) at follow up for 30 days. No serious adverse events such as infection were reported.
Conclusion	Fire needling appears to offer relief for alleviating pain in herpes zoster. As the sample size of included trials was small and the quality of studies was generally low, rigorous clinical trials with robust reporting and appropriate outcome measures are still needed.

5.5. Accidents vasculaires cérébraux

- Qiu X, Gao Y, Zhang Z, Cheng S, Zhang S. Fire Acupuncture versus conventional acupuncture to treat spasticity after stroke: A systematic review and meta-analysis. PLoS One. 2021;16(4). [221830]. [doi](#)

Background	Post-stroke spasm is currently a complex clinical problem that remains to be resolved. Due to its excellent efficacy and few side effects, clinicians have used fire acupuncture to treat post-stroke spasticity in China. Objectives The purpose of this study was to evaluate the clinical efficacy of fire acupuncture compared with conventional acupuncture to treat post-stroke spasms and provide a detailed summary of the commonly used acupoints.
Methods	Eight databases (MEDLINE/PubMed, Web of Science, the Cochrane database, EMBASE, CBM, CNKI, WanFang, and VIP) were searched for randomized controlled trials (RCTs) published from database inception through August 30, 2020. RCTs that compared fire acupuncture with conventional acupuncture as a treatment intervention for patients with spasticity after stroke were included. Revman 5.3 software was used to calculate risk ratios (RR) and standard mean differences (SMD) with 95% confidence intervals (CI). Methodological evaluation or critical appraisal of the included articles was assessed using RoB-2.

Results	Sixteen studies with a total of 1,118 patients were included. Although according to the standards of the Rob 2.0 tool, most studies are considered to have some problems. Comprehensive analysis of the results revealed a consistent trend indicating several advantages of using fire needles compared to conventional acupuncture in treating post-stroke spasms, including the effective rate, recovery rate, and improvement of multiple scales represented by MAS. Concerning secondary outcomes, using the scales of FMA, BI, or NDS in this random model meta-analysis, fire acupuncture exhibited better performance compared to acupuncture [SMD = 2.27, 95%CI [1.40,3.13 (random-effects model)], [SMD = 1.46,95% CI [1.03,1.90 (random-effects model)], and [SMD = 0.90, 95%CI [0.44,1.35 (random-effects model)], respectively, with moderately high heterogeneity. When the effective rate was used as an outcome in the subgroup analysis, fire needles performed better than conventional acupuncture with respect to damage to the upper or lower limbs, and the thickness and depth of acupuncture. When the modified Ashworth scale (MAS) was used as the outcome, and the damage occurred in the lower extremity, the acupuncture depth exceeded 15mm, or the duration of stroke was longer than six months, the fire needles did not perform better than conventional acupuncture, [SMD = 0.01, 95%CI [-0.47,0.48 (fix-effects model)], [SMD = 0.21 [-0.51,0.93(random-effects model)], and [SMD = 0.76, 95%CI [-0.08,1.60 (random-effects model)], respectively. The acupoints identified with the highest frequencies in this study were Yang-meridian, including LI11-Quchi (nine times), LI4-Hegu (seven times), and ST36-Zusanli (five times). Moreover, no serious adverse effects were reported in any of the studies included in this analysis.
Conclusions	Despite several limitations, this was the first meta-analysis to focus on the treatment of post-stroke spasticity using fire needle acupuncture compared with conventional acupuncture. Our results confirmed that fire needles could provide a better clinical effect than conventional acupuncture, which will help standardize fire needle treatment strategies for post-stroke spasms.

- Qiu X, Gao Y, Zhang Z, Cheng S, Zhang S. Fire Acupuncture versus conventional acupuncture to treat spasticity after stroke: A systematic review and meta-analysis. PLoS One. 2021;16(4). [218451]. [doi](#)

Background	Post-stroke spasm is currently a complex clinical problem that remains to be resolved. Due to its excellent efficacy and few side effects, clinicians have used fire acupuncture to treat post-stroke spasticity in China.
Objectives	The purpose of this study was to evaluate the clinical efficacy of fire acupuncture compared with conventional acupuncture to treat post-stroke spasms and provide a detailed summary of the commonly used acupoints.
Methods	Eight databases (MEDLINE/PubMed, Web of Science, the Cochrane database, EMBASE, CBM, CNKI, WanFang, and VIP) were searched for randomized controlled trials (RCTs) published from database inception through August 30, 2020. RCTs that compared fire acupuncture with conventional acupuncture as a treatment intervention for patients with spasticity after stroke were included. Revman 5.3 software was used to calculate risk ratios (RR) and standard mean differences (SMD) with 95% confidence intervals (CI). Methodological evaluation or critical appraisal of the included articles was assessed using RoB-2.

Results	Sixteen studies with a total of 1,118 patients were included. Although according to the standards of the Rob 2.0 tool, most studies are considered to have some problems. Comprehensive analysis of the results revealed a consistent trend indicating several advantages of using fire needles compared to conventional acupuncture in treating post-stroke spasms, including the effective rate, recovery rate, and improvement of multiple scales represented by MAS. Concerning secondary outcomes, using the scales of FMA, BI, or NDS in this random model meta-analysis, fire acupuncture exhibited better performance compared to acupuncture [SMD = 2.27, 95%CI [1.40,3.13 (random-effects model)], [SMD = 1.46,95% CI [1.03,1.90 (random-effects model)], and [SMD = 0.90, 95%CI [0.44,1.35 (random-effects model)], respectively, with moderately high heterogeneity. When the effective rate was used as an outcome in the subgroup analysis, fire needles performed better than conventional acupuncture with respect to damage to the upper or lower limbs, and the thickness and depth of acupuncture. When the modified Ashworth scale (MAS) was used as the outcome, and the damage occurred in the lower extremity, the acupuncture depth exceeded 15mm, or the duration of stroke was longer than six months, the fire needles did not perform better than conventional acupuncture, [SMD = 0.01, 95%CI [-0.47,0.48 (fix-effects model)], [SMD = 0.21 [-0.51,0.93(random-effects model)], and [SMD = 0.76, 95%CI [-0.08,1.60 (random-effects model)], respectively. The acupoints identified with the highest frequencies in this study were Yang-meridian, including LI11-Quchi (nine times), LI4-Hegu (seven times), and ST36-Zusanli (five times). Moreover, no serious adverse effects were reported in any of the studies included in this analysis.
Conclusions	Despite several limitations, this was the first meta-analysis to focus on the treatment of post-stroke spasticity using fire needle acupuncture compared with conventional acupuncture. Our results confirmed that fire needles could provide a better clinical effect than conventional acupuncture, which will help standardize fire needle treatment strategies for post-stroke spasms.

5.6. Paralysie faciale

- Sun CY, Yuan Y, Yan SY. [Clinical effect and safety of filiform-fire needle in treatment of peripheral facial paralysis: a Meta-analysis]. Zhen Ci Yan Jiu. 2022 Mar 25;47(3):274-81. Chinese. <https://doi.org/10.10372/j.1000-0607.20210559>

Objective	To systematically evaluate the clinical effect and safety of filiform-fire needle in the treatment of peripheral facial paralysis at different stages.
Methods	Articles of the randomized controlled clinical trials (RCTs) about filiform fire needle treatment of peripheral facial paralysis published from the inception of the databases of CNKI, Wanfang, VIP, SinoMed, PubMed, Embase and Cochrane Library to December 20th, 2021 were retrieved first. The Cochrane Handbook 5.1 system was used to extract data and evaluate the quality (risk of bias) of the included papers. The overall effective rate, cure rate, Sunnybrook facial nerve function score, facial disability index scale, physical and social function score and related adverse reactions were used as the outcome indicators. The RevMan5.3 software was used for heterogeneity test and Meta-analysis was performed on papers with little clinical heterogeneity.

Results	A total of eligible 9 RCTs were included, involving 519 patients . The results of Meta-analysis showed that: compared with the conventional acupuncture therapy, the filiform fire needle in the treatment of peripheral facial paralysis had significant advantages in raising the overall effective rate (RR=1.14, 95%CI 1.07,1.21, P<0.000 1) and cure rate (RR=1.59, 95%CI 1.29,1.97, P<0.000 1),and in improving Sunnybrook facial neurological function score (MD=17.85, 95%CI 15.72,19.97, P<0.000 01), physical function score of facial disability index scale (MD=4.16, 95%CI 3.15,5.16, P<0.000 01) and social function score (MD=2.47, 95%CI 1.53,3.41, P<0.000 01). Safety analysis showed that there was no obvious adverse reaction during the filiform fire needle therapy, and the patients' tolerance to pain had no statistical difference relevant to the conventional acupuncture treatment (P>0.05).
Conclusion	Filiform fire needle is superior to conventional acupuncture in the treatment of facial paralysis in all stages, but its reliability is limited due to fewer high-quality literature with scientific and rigorous methods and trial designs. Therefore, more large-sample and high-quality RCT studies are warranted for further verification.

5.7. Polyarthrite rhumatoïde

Zhang Kai. [Systematic Evaluation and GRADE Rating of Fire Needling Treatment for Rheumatoid Arthritis] Shanghai Journal of Acupuncture and Moxibustion. 2017;36(4):484-489. [181532].

Objective	To assess the quality of literature on randomized or semirandomized clinical controlled trials of fire needling treatment for rheumatoid arthritis.
Method	A computer search assisted by a manual search was conducted of CBM (1979—2015), CNKI (1979—2015), VIP (1989—2015), Wanfang digital periodical group (1998—2015), PubMed (1966—2015), Embase (1980—2015) and Cochrane Library (Issue4, 2015). Randomized or semirandomized clinical controlled trials were included. Two reviewers extracted data independently and checked them each other. The methodological quality of research design, diagnostic and inclusion/exclusion criteria, intervening measures for fire needling/control group, efficacy evaluation criteria and observation time points, and adverse reaction reporting were assessed according to Cochrane Reviewers' Handbook 4.2.8. A meta-analysis was made of homogeneity studies. The GRADE approach rated system outcomes.
Result	A total of seven randomized controlled trials were included . Four included studies made a comparison between fire needling and medication (analgesic+ ant rheumatic) groups and there was no statistically significant difference in the efficacy rate [RR=1.22, 95%CI (0.97, 1.52)].GRADE rating was very low. Internationally accepted diagnostic criteria and general evaluation methods were still not used universally.
Conclusion	The current clinical reports show that fire needling treatment has some effect on rheumatoid arthritis, but it still needs related evidence support.

5.8. Goutte

- Hwang JH, Song A, Song HS. Systematic Review and Meta-Analysis of Efficacy and Safety of Fire Needling and Warm Needling on Acute Gout. J Pharmacopuncture. 2022 Dec 31;25(4):301-316. <https://doi.org/10.3831/KPI.2022.25.4.301>

Objectives	This study aimed to evaluate the efficacy and safety of heat stimuli (e.g., fire needling, warm needling) in acupuncture for acute gout.
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Methods	Four international online databases (PubMed, Cochrane, Embase, and Chinese National Knowledge Infrastructure) were searched to identify randomized, controlled trials (RCTs) that used fire needling and warm needling for acute gout. The methodological quality of the RCTs was evaluated using the Cochrane risk-of-bias (RoB) tool. Thirteen RCTs (840 patients) were included and analyzed. Three evaluation tools (total effective rate, uric acid level, and pain score) were mainly used. Comparisons were made between Western medicine (WM) and i) fire needling or warm needling treatment alone, ii) fire needling and bloodletting combination treatment, iii) combination of fire needling, bloodletting, and herbal medicine, iv) warm needling (concurrently). Heat stimuli in acupuncture alone or in combination treatment were more effective in terms of the total efficacy rates, uric acid levels, and pain scores than WM alone.
Results	In all the evaluation tools, the treatment effects in the fire needling alone or warm needling alone treatment group and the fire needling and bloodletting combination intervention group were significantly better than those in the WM control group. The warm needling and WM combination intervention groups also experienced significantly better treatment effects in terms of total efficacy rates and uric acid levels. Only the pain scores in the fire needling, bloodletting, and herbal medicine combination groups demonstrated significant improvement. Only four studies mentioned adverse reactions one reported loss of appetite; three studies reported none. According to the Cochrane RoB tool, most studies showed either high or uncertain RoB.
Conclusion	Heat stimuli during acupuncture could be effective for acute gout. However, as the included studies were regionally biased, more high-quality studies are needed to confirm the level of evidence.

5.9. Arthrose du genou

- Ko H, Yoo J, Shin J. A Systematic Review and Meta-Analysis of Fire Needling Treatment for Knee Osteoarthritis: Focused on Comparative Studies with Manual Acupuncture Treatment during Recent Five Years. Korean Journal of Acupuncture. 2019;36(2):104-114. [207910]. [doi](#)

Objectives	The purpose of this study is to review the effectiveness of fire needling treatment for knee osteoarthritis in comparison with manual acupuncture treatment.
Methods	Through four foreign online databases (PubMed, Cochrane library, EMBASE, and CNKI) and five domestic online databases (NDSL, RISS, KISS, OASIS, and KTKP), we searched for clinical studies that performed fire needling treatment for knee osteoarthritis until May 10, 2019. Only randomized controlled trials were selected and we assessed the risk of bias according to the Cochrane RoB criteria. This review examined the selected studies into first author, publication year, sample size, outcome measurements, results, acupoints, treatment time & period and so on.
Results	A total of 7 RCTs were selected in this review and all were conducted in China. Treatment period of more than 4 weeks and treatment visits of 10 to 20 times were the most common. EX-LE4 and ST35 (=EX-LE5) acupoints were most frequently selected in treatment. Among the evaluation indexes, a total efficacy rate was used the most. Most of fire needling groups showed more significant results compared with the manual acupuncture groups statistically.
Conclusions	All studies showed that fire needling treatments for knee osteoarthritis were more effective than manual acupuncture treatments statistically. Therefore, the results of this study could be utilized as a preliminary data for another clinical research on fire needling treatment for knee osteoarthritis. However, further well-designed randomized controlled trials will be needed to develop sufficient evidence about the effectiveness and safety of fire needling treatment for knee osteoarthritis in the future.

- Wang Y, Xie X, Zhu X, Chu M, Lu Y, Tian T, Zhuang X, Jiang L. Fire-Needle Moxibustion for the Treatment of Knee Osteoarthritis: A Meta-Analysis. Evid Based Complement Alternat Med. 2016;

: 1392627.[191807]

Objectives	The aim of this study was to evaluate the effectiveness of fire-needle moxibustion as an intervention in the treatment of knee osteoarthritis (KOA).
Methods	An updated meta-analysis of randomized controlled trials (RCTs) on fire-needle moxibustion in treating KOA was conducted by searching PubMed, Embase, the Cochrane Library, Web of Science, Wanfang database, and the Chinese Medical Database (CNKI) since their inception through March 2016. The meta-analysis was performed using RevMan 5.3.
Results	Thirteen RCTs were identified in the systematic study which consisted of 1179 participants . Fire-needle moxibustion treatment group had a statistical significance on recovery rate as well as recovery and marked-improvement rate compared with control group. Subgroup analysis indicated that there was significant difference between fire-needle moxibustion group and control group. However, GRADE analysis indicated that the quality of evidence for all outcomes was relatively low. Only two of 13 studies reported adverse reactions (difficulty in movement and intolerance of cold).
Conclusions	This meta-analysis suggests that fire-needle moxibustion is more effective than control group in symptom management of KOA. Further high quality trials should be conducted to evaluate the effectiveness of fire-needle moxibustion on KOA.

5.10. Aphthose

- Wu Y, Cheng Z, Ma W, Li Z, Weng P, Li B, Zhao W. The effectiveness of fire needle therapy in the treatment of recurrent aphthous stomatitis: A systematic review and meta-analysis. Medicine (Baltimore). 2024 Jan 12;103(2):e36817. <https://doi.org/10.1097/MD.00000000000036817>

Background	Recurrent aphthous stomatitis (RAS) is common in clinical practice and imposes both physical and psychological distress on patients.
Objective	This study aimed to evaluate the clinical effectiveness of fire needle therapy for the treatment of RAS, providing a basis for clinical decision-making.
Methods	Eight databases, in both Chinese and English, were searched from their inception until December 2022. All randomized controlled trials (RCTs) that utilized fire needle therapy, either alone or combined with other treatments for RAS, were considered. Data evaluation and extraction were conducted independently by 2 authors.
Results	The revised Cochrane Risk of Bias Version 2 tool was employed to assess the risk of bias in the included RCTs. A meta-analysis was conducted using Review Manager 5.4 and Stata 15.0. Nine RCTs involving 1469 patients were selected for inclusion. The meta-analysis revealed that, compared to a non-fire-needle control group (primarily utilizing vitamin and transfer factor treatments), fire needle therapy for RAS significantly improved the total effective rate (relative risk = 1.25, 95% confidence interval [CI] [1.14, 1.36], $P < .00001$), reduced the visual analogue scale score (mean difference = -1.68, 95% CI [-1.82, -1.53], $P < .0001$), diminished the Traditional Chinese Medicine symptom score (standardized mean difference = -1.20, 95% CI [-1.76, -0.65], $P < .0001$), and shortened the healing time (mean difference = -1.66, 95% CI [-2.73, -0.59], $P = .002$). Notably, there was no significant difference in the recurrence rate between the groups (relative risk = -0.18, 95% CI [-0.36, 0.01], $P = .06$). Further subgroup analysis on total efficacy rate was performed based on variables such as experimental group intervention, control group intervention, and duration of therapy to explore potential sources of heterogeneity.

Conclusion	Fire needle therapy appears to be a clinically effective treatment for RAS, offering benefits such as pain alleviation, symptom improvement based on the Traditional Chinese Medicine parameters, and faster recovery. Nonetheless, the overall quality of the RCTs available raises concerns. Future research, involving high-quality RCTs, is essential to confirm the clinical efficacy and safety of this treatment. Registration number: PROSPERO (CRD42023387973).
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6. Etudes cliniques et expérimentales

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