

Effective Acupuncture Treatment for Cardiac Syndrome-x: Palpitations in premenopausal women, comprehensive review of classical and modern literature and recommended therapy

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Aim:

Could acupuncture be an effective additional therapy to conventional Western treatment for Cardiac syndrome-x in premenopausal women, and might provide a guideline in diagnosis and treatment.

Conclusion:

Acupuncture could provide non-cardiac chest pain patients a positive impact on their QoL, is non-invasive and safe. Diagnosed blood-deficiency in syndrome-x in premenopausal women should always be completed with the whole (complex) picture in personalized patient-care. More research is needed.

Background:

Angina pectoris is one of the most common causes of application for emergency medical assistance. Angina pectoris with no evidence of coronary artery disease: 'Cardiac Syndrome X', has puzzled cardiologists almost since the advent of coronary arteriography. Despite major advances in the understanding of the pathophysiology of angina in recent years, the cause and mechanisms underlying the syndrome of angina with normal coronary arteries remain unknown.

- Specific patient characteristics are self-reported anxiety, female gender and age < 50 years
- 43% of the individuals undergoing coronary angiography DO NOT receive a diagnosis of CHD
- Patients with "syndrome x" symptoms as shortness of breath, chest pain or palpitations, may actually have an anxiety disorder.
- 79.1% of primary care patients with medically unexplained cardiac symptoms are women < 50 years
- Some publications report medication therapy for severe non-cardiac chest pain, but no clear guidelines exist how to treat these women.

- Persons with chest pain were four times more likely to have panic disorder than were those without chest pain
- Economic implications: patients with panic disorder often undergo expensive cardiac workups but receive neither a diagnosis of panic disorder nor treatment for the chest pain. However, the symptoms may have such an important impact, that the quality of life is adversely affected.

Litt: Chignon et al. 1993, Carmin et al. 2003, Beitman et al. 1989, Sadée, (2007).

Methods:

Literature review was undertaken of classical texts, next to modern studies that compared acupuncture with a control procedure for the treatment of palpitations.

Results:

In Western Medicine: between T4 and T5 vertebrae: branch of sympathetic nerve system that influence the heart. In TCM, next to T4 and T5 vertebrae Back Shu points, influencing Pericardium and Heart. Pericardium channel points affect the more physical function of the Heart. In Chinese Medicine, in the classical texts, palpitations are found in every known Heart pattern.
- Responsible for mental-emotional life is 'Hearts' functions of controlling Blood and housing the Shén (Table 1).

- Treatment should be focused on dealing with coexisting pathologies: regulation of emotions, proper Blood-nourishing diet, good balance in work and rest should be pointed out to enhance acupuncture treatment.
- Mostly described: Heart-Blood deficiency with (Liver-)Blood deficiency or liver Qi stagnation due to emotions.
- The basic-formula found: REN-17, P-6 and HE-7;
- combining Shén calming Du-20 + DU-24, GB-13, and optional SP-6, KID-6, SP-4.
- In treating women, the right body-side is considered for the principal acupuncture-points.

Basic formula : REN-17, P-6 and HE-7; combining Shén calming Du-20 and DU-24, and GB-13.

REN-17 "Shanzhong": point on the Ren Mai, strongly represents the Yin, indicated in female treatment, and influences the Heartbeat and Qi of the chest. It has a calming influence on the Shén.
P-6 "Neiguan" means "Inner Pass", imaging the point to be like a mountain pass, thus safeguarding what lies behind; the Interior. P-6 : Master point of the Yin Wei Mai and Command point of the chest. Active role in Blood management in the Heart and chest connections and interactions with Ren Mai, Chong Mai and Yin Wei Mai, so indicative in female treatment. In combination with KID-6 and SP-4 the connection plays an important role in anxiety.
HE-7 "Shénmen" tonifying point for the Zang Heart and as important Shén calming point, seem to be most effective in combination with REN-17 and SP-6.

Table 1 The Seven Emotions and their effects on Qi, Blood, Yin, Yang and the Heart Shén

Emotion	Zang / Shén	Physiologic movement	Pathologic movement	Effects on Qi, Blood, Yin or Yang	Effects on Heart Shén
Anger	Liver / Hun	natural thrust of movement, ideas, plans	uprising	Yang rising and heating, Yin injuring	scattered, agitated and tense; loss of right ideas
Fear	Kidneys / Zhi	watchfulness, alertness, cautious, willpower	break up of Heart-Kidney axis	imbalance of Yin and Yang of the Heart	agitation and loss of ability of being oneself
Joy	Heart / Shén	deep harmony and being united with oneself, conscious behaviour	absence of tension, outward unbound movement	swelling of Yang followed by diminishing of Qi	losing anchor, losing direction of life
Sadness	Lungs / Po	movement of condensation, gathering together, instinctiveness	tightening of Heart Qi	depletion of Qi	disconnection with other Zang on mental-emotional level
Grief	Spleen / Yi, Lungs / Po	contrary movement of life	oppression and lack of circulation	no transformation, circulation	loss of knowing what to do or want
Worry	Spleen / Yi	meditation, reflection, analysis	fixation, tightening	consumption of Heart Blood, knotting of Qi, emptying of Yin	fixation of thought
Shock	Heart / Shén	opposite of thought	disorder, no connections ensured	emptiness of Blood, disorder of Qi	loosened anchor, easily frightened, no proper reaction of Heart Shén

Large randomized trials demonstrating the immediate and sustained effect of acupuncture are missing.

The 7 published acupuncture-treatment studies found no adverse side effects or complications. Acupuncture has beneficial effects when treating palpitations, therefore is thought to be useful as complementary therapy or to replace generally accepted pharmacological intervention.

Table 2 Comparison of treatment in cases with Anxiety and Palpitations

Source	Race	Gender and age	n	Indication	Treatment principle	Result	Point combination
Li Yongtang - Acupuncture treatment of angina pectoris.	Asian	Not specified	Not specified	Pathogenic state induced by Heart Qi and - Blood stagnation. Palpitations, chest distress, Wiry-Uneven-Forceful pulse	Regulating Qi-flow, soothing chest oppression, promoting Blood circulation by removing Blood stasis	Symptoms relieve and good short term effect	REN-17, P-6, REN-12, ST-36 and SP-6
Hu Jinsheng - Acupuncture Treatment of Palpitation, teaching round.	Asian	Female, 33 years old	1	Palpitations for 3 days after uterine curettage with nervous tension and post-operative dizziness and precordial discomfort. Pale complexion, pale tongue with thin white coating, Xi-Shuo Mai.	Soothing the Heart and calming the Mind.	Disappearance of symptoms and good mental status; follow-up after 6 months: no recurrence	P-7, HE-7, P-6, REN-17, REN-14, REN-6, ST-36, DU-20, DU-24, Yintang
Mazin Al-Khafaji - Acupuncture prescriptions for tranquilizing the Heart and calming the Spirit.	Not specified	Not specified	Not specified	Oppression and distension of the chest, palpitations (both Jingji and Zhengzhong), dizziness, pain and swelling of the throat, stiffness of the tongue, inability to speak, insomnia, hysteria, madness, enuresis, excessive menstrual flow, and pain along the medial aspect of the arm and the wrist.	Calm the Heart, tonify the Kidneys, calm the Shén, and pacify the Mind, Regulate Qi and Blood, harmonize Yin and Yang, nourish the Heart, calm the Spirit	Effects not specified	KID-4 and HE-5 HE-7 and SP-6
Zhang Hong, Zeng Zheng and Deng Hong - Acupuncture Treatment for 157 Cases of Anxiety Neurosis.	Asian	Female: 56% Male: 44% Age: 16-60 years	157	Anxiety, restlessness and constant fear, and in case of Palpitations first treated from the Heart, often seen in females in their 40s.	Regulation of Heart Qi and tranquilization and controlling Emotions	Effective rate of 94,3%; 44% cured, 28% markedly effective, 22% improved	DU-20, BL-15, BL-44, P-6, HE-7, Sishencong+ GB-13 + DU-24, DU-12, GB-13 + DU-12
Guo Naqin and Nie Hongdan - Electro acupuncture Treatment for 30 Cases of Anxiety Neurosis.	Asian	Female: 22 (73%) mainly female patients aged 18-40. Male: 8 (27%) Age: 19-61 years	30	Fear and tension, dysfunction of vegetative nerves, kinetic tension and palpitations, Anxiety neurosis (deficiency of Heart, Liver and Kidney) > Qi- + Blood deficiency, obstructed Qi flow, deficiency in the Zang Fu def.	Regulating the DU Mai, coordinating Qi and Blood and balancing Yin and Yang	Total effective rate of 93,3%; marked effect in 60%, improvement in 33,3%.	-DU-20 + Yintang Bilateral Taiyang, GB-20 -BL-15, BL-18, BL-20, BL-23, Yintang, BL-15, P-6, HE-7, SP-6 in case of Heart deficiency
Wang Zhiling, Li Yuhong, Lin Hong - Acupuncture Treatment of Generalized Anxiety Disorder.	Asian	Male and female, not particularly specified	35	Generalized anxiety disorder (GAD)	Regulating Qi, relieving mental stress and tranquilizing the Mind.	Effective rate 94,3%; cured 34,3%, markedly effective 45,7%, improved 14,3%	Yintang, DU-20, P-6, HE-7, REN-17, SP-6.
Mao JY et al. Chin J Integr Med. 2007 Summary of 32 patients with cardiac syndrome X treated by TCM therapy of regulating qi relieving chest stuffiness and promoting blood circulation.		Prospective, non-randomized controlled study	51 CSX patients - 2 groups, n=32 intervention LKH + conventional treatment -control group n=19 conventional treatment (nitrate, diltiazem, hydro-chloride, etc.)		Regulating qi, relieving chest stuffiness and promoting blood circulation	chest pain, palpitation in the treated group improved vs control (P<0.05); as in total effective rate on angina pectoris and TCM syndrome (P<0.05). The treadmill exercise test (Max MET obviously improved after treatment in both groups, and sign more improvement in the treated group (P<0.05).	Liqi Kuanxiang Huoxue method LKH

Discussion and recommendation

- Research outcomes of both Western medicine and TCM show high rates of premenopausal women with palpitations in combination with anxiety. Modern medicine studies concern non-cardiac chest pain with anxiety; TCM defines Xin Ji or Fright Palpitations.
- Where modern medicine approach has little answer in guideline or treatment for this phenomenon, TCM research shows clear physiology, syndrome differentiation and high effective rates of acupuncture treatment.
- Acupuncture could provide non-cardiac chest pain patients a positive impact on their QoL, is non-invasive and safe. TCM-Diagnosed blood-deficiency in syndrome-x in premenopausal women should always be completed with the whole (complex) picture in personalized patient-care. More research is needed.

Acknowledgements: The authors thank Clinic for Complementary Medicine Praktijk Rodenrijs who, in part, supported this study and Thierry Tetenburg (Wentelwereld.nl) for the poster layout.