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IMMEDIATE EFFECT OF FU'S SUBCUTANEOUS NEEDLING FOR SHOULDER PAIN

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Background and Aims: Fu's Subcutaneous Needling (FSN) is a new needling therapy only acting at subcutaneous layer around the afflicted spot. Previous work proved FSN has immediate effect on low back pain. This trial is to observe the immediate effect of FSN for benign shoulder pain.
Methods: Fifty patients with shoulder pain were separated into two groups in random: FSN Group (n = 24) and Placebo Group (n = 26). The insertion point located at thumb lateral of the forearm of painful shoulder side. Placebo Group used the same trocar needle, and inserted the same point, as FSN Group. The differences between the two groups were that the trocar needle swayed from side to another subcutaneously, while the needle of Place Group only penetrated slightly and motionlessly. Clinical evaluation of this single-blind study included measuring motion-related pain (MRP), pain under certain pressure (PUP), and range of cervical movement (ROM).
Results: In both groups, after intervention, MRP, PUP all reduced. ROM increased in FSN Group, while the increase in Placebo Group was not significant. The improvement in FSN Group was significant more than in Placebo Group.
Conclusions: FSN can safely and immediately palliate painful problems and increasing functional ability for patients with shoulder pain.

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SUPPRESSION OF PAIN BY INFLUENCE OF BIOPTRON-POLARIZED LIGHT ON ACUPOINTS

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Background and Aims: Analgesic effect can be evoked not only by prick of needles into acupuncture points (AP), but also by action of different types of energy (warming, microwaves, electric current, magnetic field). Investigation was done to determine, whether a statistically reliable weakening of acute and tonic pain after BIOPTRON-polarized light (BPL) application on acupuncture points had place.
Methods: Experiments were done with white mice. Tonic pain was provoked by formalin test. Duration of pain (licking of pain locus) and non-painful reactions (sleep, eating) for 60 min in mice control and receiving BPL application on AP E-36 or V-60 groups were recorded. A source of BPL was BIOPTRON device (polarization 95%, power density 40 mW/cm2, wavelength 480–3400 nm, light energy 2.4 J/cm2/min). Acute pain was evoked by an electrical stimulation of feet. A threshold was measured by vocalization before and after action of BPL on AP.
Results: BPL actions on the APs produced statistically reliably decrease of tonic pain response (licking) and increased duration of non-pain reactions. Analgesic effect depended on a choice of AP and light exposition. Maximal analgesia (50%) was observed after 10-minute BPL action on AP E-36. Action of light on AP E-36 reliably raises an acute pain threshold at electrical stimulation of feet. Analgesia composed 34.2–59.1% and remained for more than 3 hours.
Conclusions: BPL action on APs shows statistically reliably decreases of tonic and acute pain. These results present evidence of the efficacy of pain inhibition by exposure of APs to BPL.

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COLLAGEN-INDUCED ARTHRITIS (CIA) AND ELECTRICAL SHOCK STRESS IMPAIR BUT ELECTRO-ACUPUNCTURE STIMULATION RESTORES BLOOD FLUIDITY

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Background and Aims: It is widely known that many stressors including pain affect circulation system, however little is known about the effect on blood fluidity which is one of the most important factors in circulation. We attempt to elucidate the effect of pain stress induced by CIA and electrical shock stress on blood fluidity using micro channel array flow analyzer in rats and mice. Furthermore we investigated the effect of electro-acupuncture stimulation, which causes analgesia, on blood fluidity.
Methods: The blood fluidity is indicated as passing time for which the blood flows through the capillary mimicked grooves. The elevation of passing time means impairment of blood fluidity. For induction of CIA, collagen purified from bovine cartilage was subcutaneously injected two times. Electrical shock stimulation (at 1 Hz, for 1 hour) was inflicted from the grids arranged in the bottom of the cage. Electro-acupuncture stimulation (at 1 Hz, for 1 hour once a day) was applied to both sides of Zusanli (ST36) points for 2 days. Blood was collected from the inferior vena cava under the pentobarbital anesthesia.
Results: CIA and electrical shock increased the passing time of blood, however acupuncture stimulation reduced the time with statistical significance. The extent of change was larger in the case using heparin than EDTA as an anticoagulant.
Conclusion: These results mean that chronic pain and electrical shock impairs but acupuncture stimulation restores the blood fluidity mainly through the modification of platelets agglutination because heparin does not inhibit platelets agglutination but EDTA blocks both blood coagulation and platelets agglutination.

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APPLICATION OF DISCUS COMPOSITUM IN THE COMBINATION WITH ACUPUNCTURE IN COMPLEX THERAPY OF RADICULAR PAINS OF LUMBAR OSTEOCHONDROSIS

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The purpose of the given research was comparison of efficiency of a combination of acupuncture and antigomotoxic drug – Discus compositum (Heel) in a complex therapy of patients with radicular pains with lumbar osteochondrosis.
60 patients with pain caused by radicular syndrome L5, as a result of hernias of discs L4-L5, L5-S1, were observed. All patients were into 3 groups: 1-st (n = 20) received the basic therapy including no-steroid antiiflammatory drugs, vitamines, vasodilators, the second group acupuncture in addition to the "base" therapy was administrated. The following points were affected: V28–30, V-54, VB-30, VB-31, VB-37, 39, VB-40, 41. During the procedure (30 minuets) 6–10 points were influenced, 5 days weekly, total 10 procedures. To the 3-rd group (n = 20) into the special points of acupuncture after the procedure 0.2–0.3 ml of solution of Discus compositum was injected 2–3 times total 10. Pains were analysed using VAS. By these criteria prior the begining of treatment the allocated groups showed no difference. But after the complex treatment only in the 3rd group of patients the reliable results had been obtained: the decrease of pains as to VAS intensity scores from 81.5 to 31.7 ($p < 0.001$). Thus, an additional injection of Discus compositum in activated acupuncture points provides additional pain-release effects in patients with radicular L5 painful syndromes.