In this issue of the journal, recommended articles are selected from the Korean Journal of Acupuncture (pISSN 2287-3368/eISSN 2287-3376) published in Korean and from the Journal of Pharmacopuncture (pISSN 2093-6966/eISSN 2234-6856) published in English.


**Review on the Absence of an Accumulation Point in the Governor, Conception, Thoroughfare, and Belt Vessels of the Extra Meridian**

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**Abstract**

Objectives: The accumulation point is a useful acupoint for acute pain diseases. Among the eight extra meridians, only four (Yin Heel, Yang Heel, Yin Link, and Yang Link vessels) have accumulation points; the others (governor, conception, thoroughfare, and belt vessels) do not. However, there is no explanation for these latter four meridians not having an accumulation point. Thus, the authors researched the literature to look for the reasons.

Methods: We used several research engines to identify 10 books and 1 paper about the ‘accumulation point of extra meridians’ and looked for reasons the 4 meridian do not have an accumulation point.

Results: All of the 16 accumulation points are located on the 4 limbs. The four limbs have more Yang energy than the trunk. The governor, conception, thoroughfare, and belt vessels do not flow in the limbs. No acupoint seems to be located on a gap deep enough to be the accumulation point among the four vessels. When it comes to the functions of these vessels, they are little related with the acute pain that is the main target of the accumulation point.

Conclusions: From the results of this study, that the governor, conception, thoroughfare, and belt vessels have no accumulation point seems reasonable.

Keywords: accumulation point; extra meridian; limb; truncus


**Influence of Rotation Number in the Effect of PC6 on the Heart Rate: A Pilot Study**

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Abstract

**Objectives:** In the acupuncture treatment of Korean medicine, that tonifying or purging depends on how many times the needle is rotated has been widely accepted. However, little evidence exists about the optimal number of rotations. This study, therefore, aimed to investigate the optimal number of rotations.

**Methods:** Heart rate variation was measured before and after exercise in 20 healthy adults. Acupuncture was performed at PC6 immediately after exercise according to the protocol of each group. Pre-exercise and post-exercise measurements were compared, and the rotation number that produced a statistically significant difference was investigated.

**Results:** Significant differences were found in the heart rate variation and average R-R interval between the non-rotation group (control) and both the tonifying group with 15 rotations and the purging group with 6 rotations.

**Conclusions:** Numbers of rotations that had significant effects of acupuncture performed at PC6 on the HR and the average R-R interval were 15 in the tonifying group and 6 in the purging group.

**Keywords:** rotation; tonify; purge; heart rate variation; acupuncture; PC6

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**Effects of Acupuncture at ST41, BL60, and GB38 on Changes of Nitric Oxide and Nitric-oxide Synthase in Rats**

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Abstract

**Objectives:** To observe the changes in the expressions of nNOS, iNOS, eNOS and NO caused by needle insertion on the river points, we used one of the five transport points of the three yang meridians of the foot.

**Methods:** In the rats, the needle was inserted on both the left and the right sides of ST41, BL60 and GB38 and was retained for five minutes. After the retention, blood was drawn via cardiac puncture, and tissues from each point around the meridian vessels were extracted to observe the changes in the expressions of nNOS, iNOS, eNOS and NO.

**Results:** In terms of the effect on the expression of nNOS within tissues, ST41 showed a significant decrease based on the results of immunohistochemistry. In terms of the effect on the expression of iNOS within tissues, none of the experimental groups showed any significant change compared to the normal group. Regarding expression of eNOS within tissues, GB38 showed a significant increase based on the results of immunohistochemistry. In terms of the effect on NO creation in tissues, none of the experimental groups showed any significant change compared to the normal group.

**Conclusions:** The effect of needle insertion at the river points of the three yang meridians of the foot on the expressions of nNOS, iNOS, eNOS and NO could be observed, and based on this study, we postulate that the effect of needle stimulation on changes in the nervous system might be found through additional research.

**Keywords:** five transport points; nNOS; river point; iNOS; eNOS; NO

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**In-Vitro, Anti-Bacterial Activities of Aqueous Extracts of Acacia catechu (L.F.) Willd, Castanea sativa, Ephedra sinica stapf and shilajita mumiyo Against Gram Positive and Gram Negative Bacteria**

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Abstract

**Objective:** Evaluations of the in-vitro anti-bacterial activities of aqueous extracts of Acacia catechu (L.F.)Wild, Castanea sativa, Ephedra sinica stapf and Shilajita mumiyo against gram-positive bacteria (Staphylococcus aureus, Streptococcus
Meridian system. This article is part of a series on. The collateral system also incorporates a branching expanse of capillary-like vessels which spread throughout the body, namely in the 12 cutaneous regions as well as emanating from each point on the principal meridians. If one counts the number of unique points on each meridian, the total comes to 361, which matches the number of days in a year, in the moon calendar system. Note that this method ignores the fact that the bulk of acupoints are bilateral, making the actual total 670. There are about 400 acupuncture points (not counting bilateral points twice) most of which are situated along the