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# A Traditional Literature Review on Acupuncture and Moxibustion during Pregnancy

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#### Abstract

**Objectives:** The safety of on acupuncture and moxibustion treatment during pregnancy is as important as their effectiveness. To establish a rationale and research strategy for future studies, we performed a traditional literature review to summarize how and under what conditions acupuncture and moxibustion treatment was given during pregnancy.

**Methods:** An extensive traditional literature search for acupuncture and moxibustion treatment during pregnancy was conducted in comprehensive medical texts and in texts on acupuncture and moxibustion and on obstetrics and gynecology. Treatment conditions, methods, and contraindications were summarized and tabulated.

**Results:** Twenty-eight books were included in our review. Most frequent reason for acupuncture and moxibustion treatment during pregnancy was difficult delivery, including breech presentations; commonly used acupuncture points for difficult labor included LI4, SP6, BL67, BL60, KI6, ST30, SP12, LR4, LR3, PC6, CV3, CV14, KI13, and GB21, indicating that those acupuncture points may have to be avoided during pregnancy. Descriptions of other symptoms or conditions were sparse. For habitual abortion or recurrent miscarriage, moxibustion on GV4, BL23, CV3, KI8, and KI2 was indicated. A combination of LI4 and SP6, and CV4 were consistently contraindicated during pregnancy across the reviewed books.

**Conclusions:** Our traditional literature review has shown that the use of acupuncture and moxibustion treatment during pregnancy has been limited. Given that more and more pregnant women are interested in safe and effective treatment, further research of acupuncture's safety and efficacy during pregnancy is urgently needed.

Key Words: pregnancy; acupuncture; moxibustion; contraindication; safety

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# Purification and Characterization of a Fibrinolytic Enzyme from Snake Venom of Macrovipera Lebetina Turanica

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#### Abstract

**Objectives:** In this research fibrinolytic enzyme preparations were isolated from the snake venom of *Macrovipera lebetica turanica*.

**Methods:** The purity of the preparations was determined using SDS-PAGE and the enzymic characteristics of the purified fibrinolytic enzyme were determined.

**Results:** 1. Two preparations with fibrinolytic activity obtained from the snake venom of *M*. *l*. *turanica* contained a major polypeptide with a molecular weight of 27,500. One of the preparations showed purified fibrinolytic enzyme. 2. The purified fibrinolytic enzyme hydrolyzed the  $\alpha$ -chain of fibrinogen faster than the B-chain, but did not hydrolyze the  $\gamma$ -chain.

3. The fibrinolytic activity was inhibited completely by EDTA, EGTA, 1-10-phenanthroline, and dithiothreitol.

4. The fibrinolytic activity was inhibited completely by calcium chloride, iron(III) chloride, mercuric chloride, and cobalt (II) chloride.

5. The fibrinolysis zone formed after addition of zinc sulfate was smaller, but clearer, it was for than the control. **Conclusions:** These results suggest that the fibrinolytic enzyme purifed from the snake venom of *M*. *l turanica* was a metalloprotease containing a dithiol group.

Key Words: snake venom; Macrovipera lebetica turanica; fibrinolytic enzyme, Fibrinolytic activity

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