



# Acupuncture as adjuvant general anesthesia on cesarean section

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## Abstract

Acupuncture has been widely used to induce analgesia. Acupuncture can be used as pain therapy, allergy, inflammation, metabolic disorder, poststroke and adjuvant anesthesia. This case report aims to describe the benefits of acupuncture as an adjuvant of general anesthesia in cesarean section. A 20 years woman G1P0A0 parturien aterm with fetal breech position presented to undergo cesarean section in general anesthesia with an adjuvant acupuncture at Dr. Dustira Hospital Cimahi Indonesia in June 20th, 2017. Patient was treated electroacupuncture by inserting needles at the points of incision, Hegu (LI-4), Neikuan (P-6), Sanyinjiao (SP-6) and Zusanli (S-36) bilaterally 10 mA at a frequency of 40 Hz began 30 minutes before induction of anesthesia until surgery was completed. Induction of anesthesia was initiated by injection of fentanyl 50 µg and propofol 50 mg until negative eyelids reflex followed by ventilation support with isofluran, N<sub>2</sub>O:O<sub>2</sub>, atracurium 25 mg and then performed intubation. Maintenance of anesthesia used isofluran to achieve adequate anesthesia level with BIS monitor on 40-60 scale, N<sub>2</sub>O:O<sub>2</sub> = 2 L/min: 2 L/min. During operation the hemodynamic condition was stable with an average of end tidal isofluran 0.5 vol%. The baby was born with APGAR score of 5-8-10. After surgery the acupuncture needle at the left Hegu point is maintained for 24 hours. Patient was not given either analgesic or antiemetic postoperatively. The patient was admitted to the recovery room for 30 minutes without any complaint of bleeding, pain, nausea or vomiting, then moved to the nursing ward. In this case, acupuncture as adjuvant general anesthesia decreased the dose of anesthetic drugs and did not interfere with the fetus. Acupuncture was also useful to prevent postoperative pain and nausea vomiting.

**Keywords:** Acupuncture, adjuvant anesthesia, caesarean section, electroacupuncture

## Introduction

Acupuncture can be used as therapy of pain, allergy, inflammation, metabolic disorder, poststroke and adjuvant anesthesia. Acupuncture has been widely used to induce analgesia. There are two techniques in acupuncture therapy, namely manual acupuncture and electroacupuncture. Electroacupuncture is a modified form of traditional manual acupuncture. The advantage of electroacupuncture is to have the combined therapeutic effect of transcutaneous electrical nerve stimulation (TENS)

and manual acupuncture. Most studies use electroacupuncture because the frequency, voltage, shape and wave length can be standardized [1,2].

Understanding of acupuncture is very important for anesthesiologists since acupuncture can be used as an adjuvant of general anesthesia to decrease the dosage of anesthetic drugs and also to increase postoperative outcomes [3].

This case report aims to describe the benefits of acupuncture as an adjuvant of general anesthesia in patient undergoing