CHAPTER 11

OPEN HEART OPERATION UNDER ACUPUNCTURE ANESTHESIA

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The history of acupuncture for relieving pain in Chinese traditional medicine could be traced back to the Warring State Period (戯国) more than two thousand years ago. Acupuncture was developed and employed for anesthesia in surgical operation in the late 1950's. The first type of operation successfully performed under acupuncture anesthesia was tonsillectomy. Since then, acupuncture anesthesia had been employed in various other types of operations, including thoracic operations, such as lobectomy and mitral commissurotomy. We started to explore the possibility of using acupuncture anesthesia for open heart surgery in the late 1960s. A number of technical and physiological problems had been solved during the following decade. Experience in our clinic as well as many others proved that in selected patients and by trained teams, acupuncture anesthesia may be used with advantage in certain operations, including open heart procedures. Our experience in a series of 250 open heart operations under acupuncture anesthesia forms the basis of this chapter.

METHOD OF ACUPUNCTURE ANESTHESIA

Selection of Acupuncture Points

The meridian theory of ancient Chinese traditional medicine advocates: "Whenever the meridian passes, the keynote for treatment lies". Many points on both upper and lower extremities in the course of proper meridian leading to the chest had been chosen for acupuncture to control chest pain. Many points on the ears reflect the anatomical distribution of viscera and organs of human body. So selection of ear points was based on the theory of "Zang-Shiang" (藏象). In our practice the acupuncture points chosen were combination of points on both ears and extremities. Ten groups of various combinations had been employed. The sixth group of points was the most effective one. It comprised of the "Thorax", "Neck", "Kidney" and "Lung" points on the left ear lobe and "Neiguan" and "Lieque" points on the two forearms (Fig. 11-1).
Fig. 11-1 Acupuncture points on forearm:

a. “Neiguan” point (on the median line of the forearm, about 3 cm proximal to the distal furrow of the wrist).

b. “Lieque” point (about 3 cm proximal to the styloid process of the radius).

Technique of Needling

The fields of acupuncture were sterilized with alcohol. Stainless steel needles of selected sizes were inserted at the acupuncture points to the proper depth and twirled manually with a rapid up and down movement of the needles by the thumb and fingers of the acupuncturist for about 15 minutes for the induction. Then the needles were connected by small clips on electric wires to an electrical stimulator (Fig. 11-2) on a direct current battery delivering a pulsatile current at 150—200 cycles per minute. The intensity of stimulation was adjusted to a degree that the patient could adapt.

Fig. 11-2 Open heart surgery going on under acupuncture anesthesia. Acupuncture needles on “Neiguan” and “Lieque” points are connected by electric wires to an electrical stimulator.

Preoperative Preparation

After admission to the hospital, the patient was instructed to practise abdominal breathing. A sand bag weighing 5—10 kg was placed on the front aspect of the chest, with the