



laxation using a honey-made suppository, inserting medicinal suppositories into the vagina or anus or sitting directly on the medicinals, spreading medicinal powder into the nose to induce sneezing and blowing through the auditory meatus for nasal bleeding.

Hua Tuo was known as the father of abdominal surgery in China. He was a renowned expert on Chinese external medicine during the late Eastern Han Dynasty. He invented a general anesthetic by combining alcohol with cannabis and datura called *Má Fèi Sǎn* (麻沸散, which can be literally translated as ‘cannabis boil powder’), that allowed for the performance of abdominal surgery. His general anesthesia technique is believed to have existed 1,600 years before use in the Western world. According to the *Chronicles of Later Han-Bibliography of Hua Tuo* (*Hòu Hàn Shū—Huà Tuó Zhuàn*, 后汉书·华佗传), ‘In the case of retention of pathogenic factors within the body that cannot be reached by either needles or herbal decoction, (Hua Tuo) asks the patient to take *Ma Fei San* with alcohol, become intoxicated and fall into asleep. He then cuts the abdomen open and removes the lumps or tumors. In the case of gastrointestinal conditions, (Hua Tuo) would tourniquet the stomach or intestine to remove tumors. Then clean and suture the wound. Follow this with application of medicinal paste. The wound can heal in 4 or 5 days and fully recover within one month’.

In addition to surgery, Hua Tuo also developed the Five-animal Frolics (*Wǔ Qín Xì*, 五禽戏), a series of exercises based on the natural movements and postures of the tiger, deer, bear, ape and crane. This early exercise program for preventive medicine enabled people to invigorate their head, torso, lower back, general back, four extremities and joints.

This period witnessed the preliminary establishment of Chinese external medicine, coupled with major progress in treatment, health conservation and medical care.

## DEVELOPMENT

The incessant wars lasting from the Eastern and Western Jin and Southern and Northern Dynasties through to the Sui, Tang, Song and Yuan dynasties greatly increased the requirement for surgery and external applications and, thus, boosted the development of Chinese External Medicine.

Ge Hong in the Eastern Jin Dynasty (317–420) wrote a book on first-aid methods called *the Emergency Formulas to Keep Up One's Sleeve* (*Zhǒu Hòu Bèi Jí Fāng*, 肘后备急方). His formulas were ‘simple, effective and accurate’. The fifth to seventh volumes of this text are especially dedicated to external medicine. They record, for the first time, ‘riding the bamboo horse’ moxibustion method for abscesses, malign sores, back eruptions, toxic boils, scrofula and wind syndrome, and iodine-containing Sargassum for *ying*-goiter. The management of a bite by a rabid dog is also discussed in one section, including assessment of the severity, latent period and disease course as well as approximately 20 treatment methods. One of the methods recommended is to apply the brain of the rabid dog to the bite wounds to treat or prevent rabies. This, although somewhat primitive, can be deemed the origination of artificial immunization. In addition, this text records various external therapies such as tui na, spine-pinching and wax therapy, coupled with first-aid techniques such as mouth-to-mouth resuscitation, pressing or burning to stop bleeding, wound debridement, drainage, urethral catheterization, enema, enteroanastomosis and abdominal paracentesis. Concurrently, this text records the preparation and usage of medicinal plasters, administering medicinals such as *xù duàn* (续断, *Radix Dipsaci*), *dān*