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Letter to Editor

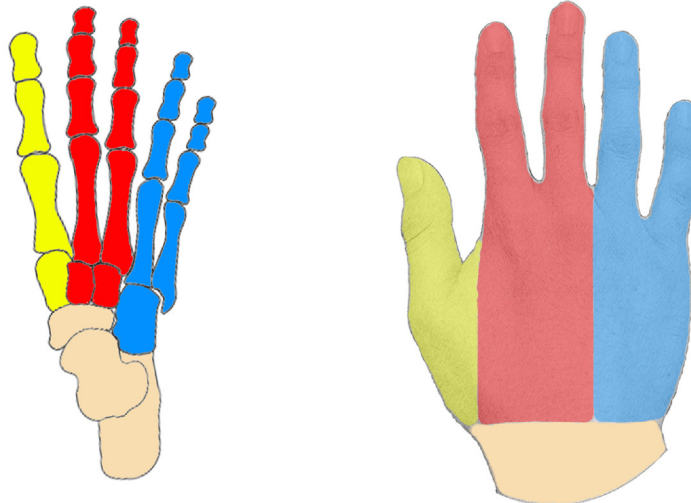
The “Hand as Foot” teaching method in anatomy of the Lisfranc joint



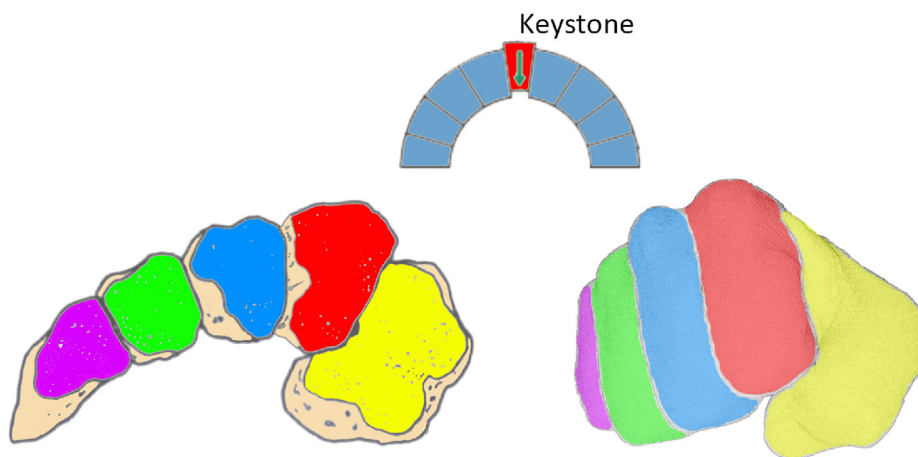
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Dear Editor,

As COVID-19 is still severe, how to continue to promote the development of medical education effectively is a question we have been thinking about. Traditional teaching methods may need to be improved in light of the current situation. Based on years of clinical practice and teaching experience, “Hand As Foot”



a : Explaining "three-column theory" of the Lisfranc joint with a "hand"



b : Explaining the role of the second metatarsal bone with a "fist"

Fig. 1. Visualization of the Lisfranc joint.

teaching method was summarized and proposed, which has been proved effective in many fields of discipline.^{1,2} In this time, it will be shown that how “Hand As Foot” teaching method works in visualization of the Lisfranc joint.

“Lisfranc injury” is more commonly used to describe an injury to the midfoot focused on the 2nd tarsometatarsal joint. The term encompasses a broad spectrum of injuries, which can be purely ligamentous or involve the osseous and articular structures. It is hard to diagnose and treat, but if not detected and appropriately managed it can cause long-term disability.³ The low incidence of Lisfranc injuries, but the high rate of missed diagnosis, may be due to a lack of understanding of the Lisfranc joint. The Lisfranc joint is a very important structure of the midfoot, which is indispensable for the weight-bearing and motor function of the foot. The Lisfranc joint consists of three cuneiform bones, one cuboid bone and five metatarsals. The structure is too complex and difficult to remember.

Fig. 1-a illustrates the “three-column theory” of the Lisfranc joint, of which we get a better understanding using “Hand As Foot” teaching method: the thumb, index and middle fingers, ring and little fingers are analogous to the inner column, middle column and outer column respectively. In addition, according to the structural characteristics of the middle column, especially the second metatarsal bone and its joints, which play a major role in the stability of the foot, the sequence of the metatarsal bones in the coronal position can be compared with the metacarpal bones in the fist clenching. As shown in Fig. 1-b, the second metacarpal at the highest position corresponds to the second metatarsal, which also indicates its special role as “keystone” in the arch-like structure.

This paper proves the value of “Hand As Foot” teaching method through an example, which is worthy of extensive promotion.

Declaration of competing interest

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Zhengxin Hao

Inner Mongolia Medical University, The Graduate School, Hohhot, Inner Mongolia, 010059, China

Xiaodong Hao*, Rui Liu, Qiang Li

Affiliated Hospital of Inner Mongolia Medical University, Department of Orthopedics, Hohhot North Street, Inner Mongolia, 010050, China

* Corresponding author. Affiliated Hospital of Inner Mongolia Medical University, Department of Orthopedics, Hohhot North Street, Inner Mongolia, 010050, China.
E-mail address: hdd81@163.com (X. Hao).

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