Hands on Stamps: Krukenberg Hand

Ahmadreza Afshar, MD

In 1917, Herman von Krukenberg, a German army surgeon, introduced an ingenious surgery for below-elbow amputees. He separated the radius and ulna to make 2 chopsticks, and each bone was supplied by muscles and skin coverage. He turned the forearm stump into a pincer. The main advantage of the surgery is preservation of proprioception and stereognosis in the 2 sensate functional stumps.[1]

Krukenberg surgery is considered primarily for blind patients with bilateral below-elbow amputations. However, in the areas in which prosthetic facilities are limited and expensive, every below-elbow amputee, especially children, may benefit from the Krukenberg surgery.[1,2]

Dr. Ronald J. Garst (1926–2009) was an American missionary surgeon and worked for many years in Bangladesh. He was enthusiastic about the extraordinary dexterity and benefits provided by the Krukenberg surgery. On the occasion of the International Year of Disabled Persons in 1981, Bangladesh issued a postage stamp to honor his works (Fig. 1).[1,2]

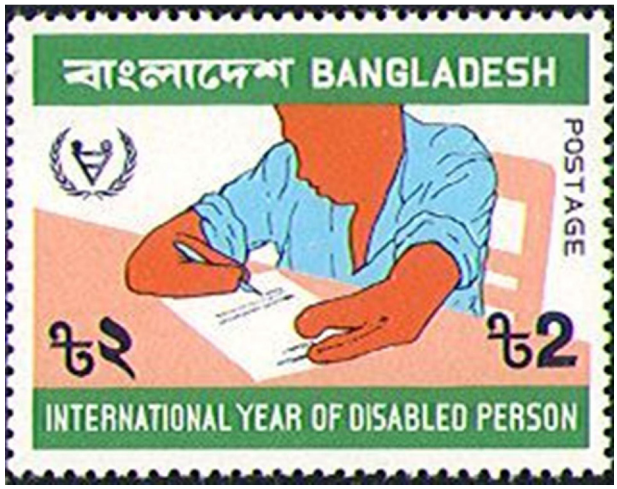

FIGURE 1: A below-elbow amputee holds a pen with a Krukenberg hand and writes. Country: Bangladesh. Occasion: United Nations International Year of Disabled Persons 1981. Scott Catalogue #205. Date of issue: December 26, 1981. Value: 2 Taka.

From the Department of Orthopedics, Urmia University of Medical Sciences, Urmia, Iran.

Received for publication November 23, 2012; accepted in revised form December 4, 2012.

No benefits in any form have been received or will be received related directly or indirectly to the subject of this article.

Corresponding author: Ahmadreza Afshar, MD, Department of Orthopedics, Urmia University of Medical Sciences, Imam Khomeini Hospital, Modaress Street, Ershad Boulevard, Urmia, 57157 81351, Iran; e-mail: afshar_ah@yahoo.com.

0363-5023/14/3911-0024$36.00/0
http://dx.doi.org/10.1016/j.jhsa.2012.12.008

REFERENCES

1. Lawrence J, Watts HG, Patton JG. Krukenberg's operation in a child. Available at: www.global-help.org/publications/books/help_krukenberg.pdf. Accessed November 21, 2012.
2. Garst RJ. The Krukenberg hand. *J Bone Joint Surg Br*. 1991;73(3):385–388.

First Hand: An Unanticipated Consequence

Roy A. Meals, MD

Sometimes the differences we make as surgeons require great effort; but easy, even unconscious acts may also have positive consequences.

Years ago, our son's preschool teacher invited her students' parents to speak to the class about our occupations. I agreed and took grip and pinch meters, an articulated upper limb skeleton, some x-rays, a roll of plaster, and some cast padding. I suited up in scrubs, shoe covers, and paper cap. The children liked all the paraphernalia, compared their hands with the x-rays and

From the Department of Orthopedic Surgery, University of California—Los Angeles, Los Angeles, CA.

Received for publication July 22, 2014; accepted in revised form July 28, 2014.

No benefits in any form have been received or will be received related directly or indirectly to the subject of this article.

Corresponding author: Roy A. Meals, MD, Department of Orthopedic Surgery, University of California—Los Angeles, 1033 Gayley Avenue, #104, Los Angeles, CA 90024; e-mail: rmeals@ucla.edu.

0363-5023/14/3911-0025$36.00/0
http://dx.doi.org/10.1016/j.jhsa.2014.07.049

