

## Bromage motor blockade score – a score that has lasted more than a lifetime

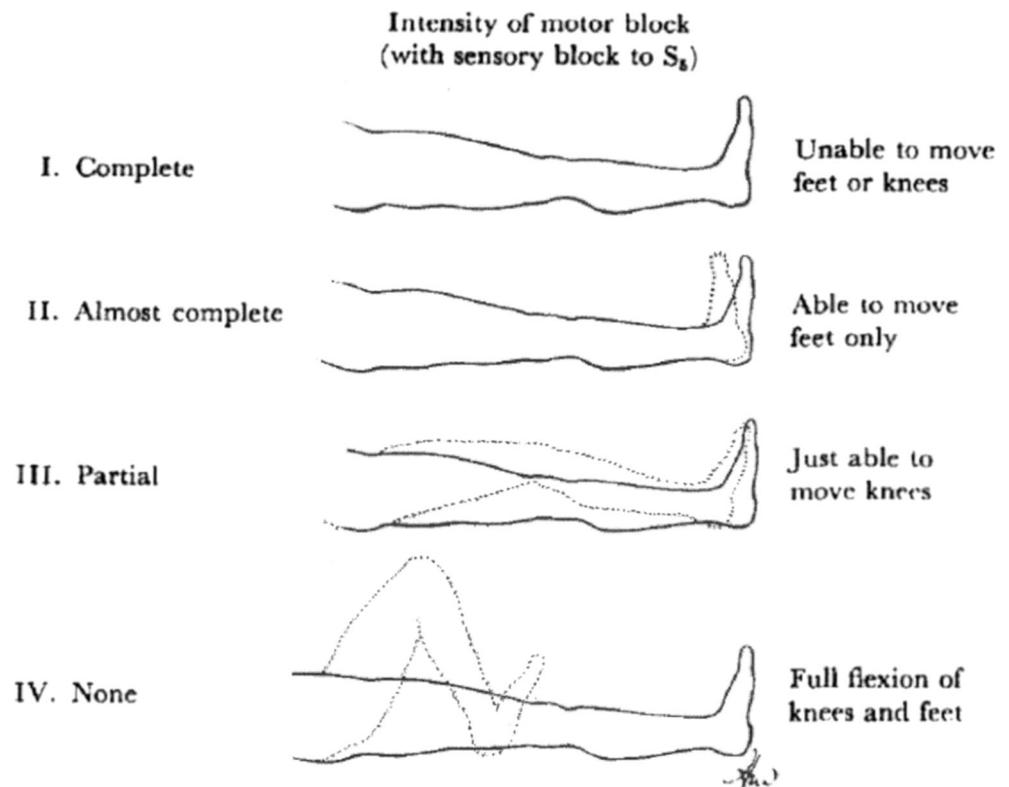
Douglas Craig, MD, FRCPC · Franco Carli, MD, MPHIL, FRCA

Received: 21 February 2018 / Accepted: 22 February 2018 / Published online: 5 March 2018  
© Canadian Anesthesiologists' Society 2018

Dr. Philip Raikes Bromage (1920-2013) was known world wide as a legend in anesthesia, most particularly regional anesthesia. Born in London, England, he completed his basic education and medical training in England,

graduating from St. Thomas' Hospital in 1943. Following house officer rotations in surgery, he decided to switch to anesthesia. After completing his anesthesia training at St. Thomas', he joined an anesthesia practice in West Sussex.

**Figure** Bromage motor blockade score. See text for further details. Reproduced, with permission, from Bromage PR. A comparison of the hydrochloride and carbon dioxide salts of lidocaine and prilocaine in epidural analgesia. *Acta Anaesthesiol Scand Suppl* 1965; 16: 55-69



D. Craig, MD, FRCPC (✉) · F. Carli, MD, MPHIL, FRCA  
Department of Anesthesia, McGill University Health Centre,  
Montreal, QC, Canada  
e-mail: doug.craig@bell.net

He published his first book, *Spinal Epidural Analgesia* (E&S Livingstone), in 1954. A year later, he was invited to visit several North American medical schools, including McGill University.

Dr. Bromage's appointment as Assistant Professor at McGill followed in 1956, and he remained there until 1977, serving as Chairman from 1970 to 1977. Subsequently, and until his retirement in 1991, he worked at several universities in the United States and in Riyadh, Saudi Arabia. His widely acclaimed and much translated book, *Epidural Analgesia* (WB Saunders, 1978) continues, decades later, to be a valued information source. In retirement, Bromage lived in Vermont (USA) and continued to visit McGill, which included attending the annual Dr. Philip Bromage Research Day for anesthesia residents and other trainees.

During his years at McGill, he developed what is called the Bromage Motor Blockade Score (Figure). This scoring system was first described in 1965<sup>1</sup> as a method for

assessing the onset and egress of motor blockade following epidural administration of local anesthetics. Bromage assigned what he described as "arbitrary scores" of 100 (complete block), 66 (almost complete block), 33 (partial block), and 0 (no block), which he used to facilitate comparisons between test groups. Although a number of modifications to the Bromage Score have since been employed, the basic score remains in use today.

**Conflicts of interest** None declared.

**Editorial responsibility** This submission was handled by Dr. Hilary P. Grocott, Editor-in-Chief, *Canadian Journal of Anesthesia*.

## Reference

1. *Bromage PR*. A comparison of the hydrochloride and carbon dioxide salts of lidocaine and prilocaine in epidural analgesia. *Acta Anaesthesiol Scand* 1965; 16: 55-69.