

Preface

Advances in objective assessment of hand function and outcome



Frédéric A. Schuind, MD, PhD
Guest Editor

Clinical assessment of the hand and wrist has evolved throughout the twentieth century. Historically, most surgical publications presented the clinical results—evaluated by the treating surgeon—as “excellent,” “good,” “fair,” or “bad.” The medical community quickly realized the importance of objective assessment, to determine the efficiency of the operation, to compare various therapeutic modalities, or to assess the progression of various disorders, for example, rheumatoid arthritis or algodystrophy.

A first effort was to measure the joint range of motion. Documented use of the universal goniometer can be traced back to the early 1900s. The instrumentation has become increasingly sophisticated, including computerized goniometers, three-dimensional electrogoniometers, and video-based motion analysis systems. Efforts to assess the reproducibility of goniometric measurements and ideal placement of the device have been made. In contrast, Kapandji recently proposed to go back to Hippocrates, assessing joint function by simple—yet precise and reliable—clinical tests.

In addition to the measurement of joint range of motion, the traditional clinical evaluation includes assessment of pain, measurement of grip and pinch strength, and evaluation of sensibility using various methods, such as Semmes-Weinstein monofilaments. Ideally, such objective measurements should be conducted on a prospective basis by independent observers (usually physiotherapists).

In contrast to these classic physical measurements, many clinicians now insist on the evaluation of outcome based on questionnaires evaluating the quality of life and the possibility for the patient to perform the various tasks of daily living. Questionnaires indeed allow us to better apprehend what our patients truly experience.

This volume includes a selection of articles presenting both approaches: refined clinical evaluation, advances in hand kinematics using sophisticated technology, and outcome assessment using adapted questionnaires. The application of all these techniques to evaluate patient suffering of various conditions (rheumatoid arthritis, problems of musicians, flexor tendon

repair, hand transplantation, and algodystrophy) is also discussed. It is hoped that the reader will use this volume as a stimulus to use or to improve techniques of functional evaluation of the hand and wrist or to develop new methods.

It has been a privilege to work with the authors of the various articles assembled in this issue. I thank all of them for graciously giving their time and talents to share their expertise with us. I also wish to thank W.B. Saunders for the opportunity to serve as a guest editor, and their editorial staff,

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Frédéric A. Schuind, MD, PhD
Cliniques Universitaires de Bruxelles
Université libre de Bruxelles
Hospital Erasme
808, Route de Lennik
Bruxelles, B-1070, Belgium
E-mail address: fschuind@ulb.ac.be