Book review

Examination of the hand and wrist

Raoul Tubiana. Jean-Michel Thomine, Evelyn Mackin, 387 pages, Martin Dunitz Ltd London, 1996
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It is with great expectations one opens Tubiana's new edition of *Examination of the hand and wrist*, first edited in 1984. 387 pages of examination techniques sounds comprehensive and complete and in that respect the book comes up to expectations. One is apt to agree with Wynn Parry, who in his foreword considers it to be a new book more than a new edition. As one third of the book deals with functional anatomy, one could argue that the title is not in complete harmony with the contents. However, knowledge about the functional anatomy of the hand is crucial for understanding the examination technique and therefore justifies its length.

Three main sections follow the anatomy section. The first one deals with the investigation of skeleton, joints, tendon-muscle tissue, supporting tissue and skin. Then follows a rather superficial and short section on imaging techniques, possibly on purpose. The importance of standardized projections of the wrist could certainly be stressed more. The difficulties of measuring the length of the ulna in relation to the radius could also be pointed out, as this is a common clinical question. The value of CT for evaluating the healing of fractures of the scaphoid, fractures at CMC-level and assessment of Kienböck's disease is, however, adeqately stressed.

The section on biomechanics and pathology of the wrist does not seem quite up-to-date. However, developments have been rapid in this area during the last 15–20 years and many aspects are still controversial and poorly known, in both the normal and the pathological situations. In any case it must be considered an imperfection that such common terms as DISI and VISI are not mentioned at all in the text, although the mechanism leading to these malpositions is described. If one wants to keep up-to-date in the complicated area of patho-mechanics of the wrist, one should read papers on the subject in medical journals published during recent years.

The section about muscle forces, amplitude and force vectors is difficult to understand and sometimes gets lost in details of questionable clinical importance. This concerns, for example, the description in text and tables of the force of individual muscles, length of fibers, amplitude, etc. mainly based on old investigations. This chapter could easily be shortened greatly.

Very instructive is the section entitled "assessment of motor function". In 30 pages, almost every muscle in the upper limb is described from the point of function and innervation, and how it is best examined and tested in the clinical situation. The illustrations are clear and distinct with a photo of adequate size and an explanatory sketch of good quality. This section is so good that it could very well be copied and kept handy in one's pocket.

Much attention is paid to the important concept of the position of the hand and fingers as a result of balancing forces. Loss of one function almost invariably leads to a disturbance of the balancing forces, which in turn leads to a characteristic deformity. Since this is well known, it leads directly to a correct diagnosis, without technically advanced investigations. Hand surgery has an advantage in this respect compared to many other disciplines. Those who let anatomy rule have a wonderful goal for their learning efforts. Tubiana knows this and he is successful in conveying his views to the reader.

The peripheral nerve has its own chapter, which closes the book. Much of its contents has more interest for historians than for practitioners, especially regarding the investigation of sensibility where 2-point discrimination together with assessment of the ability to distinguish between sharp or blunt touch today are the commonest clinical methods. There is, however, a value in mentioning other tests for sensibility for scientific research purposes.

The expressions for localization and direction used in the book are often confusing and lack structured logic. Terms like medial, lateral, anterior and posterior when one deals with hand and forearm require more thought than the commonly accepted radial, ulnar, dorsal and palmar or volar. Abduction and adduction of the wrist are unnecessarily difficult compared to radial and ulnar deviation. Dorsiflexion of the wrist (often described in the book) is also a strange term, although it is quite commonly used among orthopedic surgeons. Extension is really simpler and clearer and

can never be confused with flexion. Almost impossible to understand is the phrase "frontal-lateral movements of the wrist" which is the heading of a section where the authors claim that the lunate "dorsiflexes" when the wrist goes into radial deviation—an opinion not shared by many.

The detailed reference list is in alphabetic order and well up-to-date. The authors deserve compliments for having many references from the late 1980s and early 1990s. The references are given in the text, with both author's name and year. One can therefore make a rapid judgment about the relevance of the references. The subject index is comprehensive, well organized and selected as regards text and illustrations. It is easy to find what one seeks and there are several references to other main subjects.

The illustrations are the weakest point in the book. This is especially obvious in the anatomical section. The figures drawn in black-and-white can contain as many as 26 different numerals connected by thin black lines to its anatomical structure and they are very easily lost in the general pattern of the figure. The need for color is obvious. Tubiana, who has participated in other publications characterized by excellent colored illustrations, should be aware of this, and the absence of color or some alternative typographical device for clarity is surprising and unfortunate. Many anatomical preparations presented as photos also become difficult to interpret when they are in black-and-white. Obviously, the authors know this and therefore attach an explanatory drawing to the photo. Too often, however, the sketch is blurred or—which is as bad—inverted in relation to the photo. At least once it is even upside down, confusing the reader for a while. In general, the figures come in good relation to the text, usually on the same page.

The authors' ambition to cover all fields within the area makes it difficult to decide for whom the book really is designed. The answer is: for all who in therapeutic situations encounter hands with limited function. An experienced hand surgeon must then put up with some trying truisms like "the digits are divided into the thumb and four fingers" at the same time as an inexperienced surgeon easily gets lost in those parts of the book that, for example, deal with the complicated functional anatomy of the extensor apparatus of the fingers.

There is, no doubt, a need for a book of this kind combining functional anatomy with techniques for clinical examination. The target group consists of surgeons who are interested in the upper limb or following a training program in hand surgery. For the more experienced physician, it serves mainly as a reference book. The somewhat poorly and carelessly composed figures are, however, a drawback and anyone who is planning studies in functional anatomy is advised to take along a well illustrated book on topographic anatomy.

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