

Scintigraphy of Inflammation with Nanometer-Sized Colloidal Tracers

M. Deschrijver, Dordrecht, The Netherlands, Kluwer Academic Publishers, 1989, 212 pp, \$69.50

This book is part of a series mainly devoted to new developments in radiopharmaceuticals. The focus of this book is the use of a new radiopharmaceutical, ^{99m}Tc -labeled-nanometer-sized colloid, for detection of inflammation and/or infection in the extremities. It consists of eight chapters; an introduction to the problem of detecting inflammations, a discussion of the pathophysiology of the inflammatory processes, the presently used radiopharmaceuticals and their mechanism (including ^{99m}Tc -HM-PAO-labeled leukocytes and ^{123}I -labeled anti-granulocyte antibodies), their use in various disease process, characterization of this colloid, animal model experiments with the colloid, clinical studies, and finally a summary chapter. There is not, however, much in this book to recommend.

It is poorly written and contains not only numerous typographical errors but errors in fact or omission, which seriously impair its usefulness. References are missing or misstated. Tables and figures are referred to incorrectly in the text and are also labeled inconsistently. There are many tables of data that are not referenced or are incorrectly referenced. This leaves the reader to wonder where the data came from and, more important, how they were generated.

The book utilized a camera ready-text. The print quality is acceptable but uneven. Tables and figures are placed at the end of each chapter. Because important information is not included in a number of tables, some of the tables are difficult to interpret without referring to the text. However, this information is sometimes missing even in the text. The scintigrams are mediocre in quality but the quality is much better than that in the original articles.

Although the book is written for nuclear medicine physicians and active investigators in the field, the reader gets the distinct impression that throughout

the book the author is proselytizing for this "new" radiopharmaceutical. Perhaps active investigators would find the introductory chapters unnecessary, nuclear medicine physicians, on the other hand, might find these introductory chapters useful. A number of potentially useful radiopharmaceuticals recently have been introduced for the detection of infection/inflammation, e.g., ^{99m}Tc HM-PAO labeled leukocytes. While these introductory chapters contain a smattering of up-to-date information, the author generally relies on old outdated references and, in some instances provides incorrect information. For example, the author incorrectly states that "... ^{111}In dissociates itself from transferrin more readily than ^{67}Ga ..." and references a 1975 article. The only information in this article about ^{111}In , ^{67}Ga , and transferrin is an unreferenced statement: " ^{111}In strong binding to transferrin. The chapter containing the data characterizing this nanocolloid should have been published in the open literature to allow more easy access and critical appraisal. In addition, there is only one set of data, which, in itself, does not deserve a full chapter. Similarly, the chapter containing the animal data is reproduced entirely from a single set of previously published data and certainly does not require a full chapter.

The clinical data is rather skimpy. Only four patient series are presented, each comparing the nanocolloid with a different adjunctive agent, e.g., ^{67}Ga -citrate, and two of the four have been published only in abstract form.

The author's conclusion that ^{99m}Tc -labeled nanocolloids can be used to replace either ^{111}In or ^{99m}Tc -labeled white blood cells is wholly overblown given the limited data. This excess could be excused if the preliminary data was overwhelmingly positive. Unfortunately, it is not. The specificity of this nanocolloid in patients with confirmed diagnosis of osteomyelitis or septic arthritis was only slightly higher than ^{67}Ga -citrate.

In summary, for those interested in the use of ^{99m}Tc -labeled-nanometer-sized colloids in the detection of infectious disease processes there are a num-

ber of studies in the open literature that should be investigated. Reading this book would not further the understanding of these studies.

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Positron Emission Tomography in Clinical Research and Clinical Diagnosis: Tracer Modelling and Radioreceptors

C. Beckers, A. Goffinet, A. Bol, eds, Dordrecht, The Netherlands, Kluwer Academic Publishers, 1989, 292 pp, \$86.50

This book is Volume 15 of the *Developments in Nuclear Medicine* series, published as part of the Medical and Health Research Program of the European Community. It is the proceedings of a workshop held in Brussels, Belgium, on October 20–22, 1988. Roughly half of the book concerns PET studies of brain receptor systems, and the other half deals with PET studies of energy metabolism. It presents many different mathematical models in various approaches to analyze the data acquired in PET experiments. The chapter on identifiability of receptor model parameters gives an innovative practical approach to resolving the problem of two distinct models which both satisfy the initial set of data acquired in a PET study of the muscarinic cholinergic receptor system.

The volume seems to be merely a collection of unedited manuscripts replete with errors (both typographical and substantive contextual). In many instances, the omission of characters not on the standard typewriter keyboard (such as the greek letters for alpha and beta) confuses and frustrates the reader. Typical of the inadequate editorial treatment of the text is an untitled table placed after the list of references on page 34, without the appropriate greek symbols to distinguish alpha-adrenergic from beta-adrenergic. The formatting of references is inconsistent from chapter to chapter. Coverage of the various brain