

AN ATLAS OF PATHOLOGIC PNEUMOENCEPHALOGRAPHIC ANATOMY

by: GIOVANNI DI CHIRO, M.D.



and with contributions by: MANNIE M. SCHECHTER, M.D.
and INGMAR WICKBOM, M.D.

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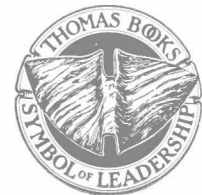
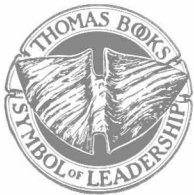
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To the late pioneers

DANDY

LYSHOLM

TWINING

and

DYKE

INTRODUCTION

*Pour bien savoir les choses, il en faut savoir
le détail*

FRANÇOIS, DUC DE LA ROCHEFOUCAULD
(*Maximes*)

*... en rigtig Diagnose er mere end det Halve
vundet*

SOREN KIERKEGAARD
(*Øieblikket*)

THE present *Atlas* complements the previous
*An Atlas of Detailed Normal Pneumoencephalo-
graphic Anatomy*.

The largest portion of this book is devoted to the space-occupying lesions. The approach to the presentation of the material has been essentially anatomic, and the lesions, therefore, are generally grouped in chapters according to their geography. Emphasis has always been put on strictly objective, though often not obvious, changes. It seems only fair to state that some of the findings have been recognized by the investigators retrospectively, i.e., on occasion of a second review of the roentgenograms. The purpose of the *Atlas* has been to present a broad spectrum of pneumoencephalographic pathology. To accomplish this end, it has been necessary, on some occasions, to compromise on the technical quality of the roentgenograms. Most of the cases included were verified at surgery or at autopsy. In some instances, the pneumographic finding was considered by itself diagnostic and in a few others angiography offered a satisfactory verification. When a confirmation would have been desirable, but was not obtained, this is stated.

The *Atlas* is made up of ventriculograms and lumbar or suboccipital pneumoencephalograms. Only when considered pertinent and important, the legend points out whether the illustration is from a ventriculography or an encephalography. In a certain number of cases, the roentgenograms represent a combination of the two techniques, and this is generally indicated in the legend. One example of subdural pneumography (Chapter XXVI, Case 6) has been included. Lateral, frontal and horizontal tomograms, as well as lateral and frontal autotomograms, are extensively represented. A few zonograms (small angle tomograms) have also been used. The horizontal (axial transverse) tomograms included are so indicated by the legends. In the great majority of cases, the reproductions are of the same size as the original radiographs. The right side of the patient is always to the left of the reader. Generally, only the pertinent part of the roentgenogram containing the pathology is shown. Sketches and arrows have been freely used to point out the pathologic changes. The legends have been kept as brief as possible, and limited to the most significant findings.

In selected cases, when considered within the scope of the Atlas, brief clinical data have been noted. This remains, however, essentially an anatomico-radiographic book. All the reproductions are by LogEtron.

The most commonly accepted and understood tumoral and other diseases nomenclature has been used, even if sometimes this happens not to be the most accurate. Excessive histo-

logical subdivisions, particularly in the glioma group, have been avoided. A bibliography of significant and pertinent references is included. In the legend of some cases, references considered indispensable for the better understanding of the respective features are included.

GIOVANNI DI CHIRO
MANNIE M. SCHECHTER
INGMAR WICKBOM

ACKNOWLEDGMENTS

THIS study was initiated under the spurring of Professor Umberto Di Chiro, Latin and Old Greek scholar. The idea of this *Atlas* was thus born, but during its preparation Umberto Di Chiro died. To his memory goes the gratitude of a son and a pupil.

Many rare or unusually well-documented cases have been borrowed from the files of other investigators. The source of these cases is acknowledged in the legend of the respective illustrations. Our gratitude goes to these kind colleagues, who are, in a true sense, co-authors of the present work.

A group of cases have been taken from the files of General George J. Hayes, MC, USA, former Chief, Neurosurgical Service, Walter Reed Army Medical Center, Washington, D.C. I take this occasion to express my gratitude to my good friend who unselfishly has helped so often by allowing me free access to his vast clinico-radiographic material.

Mr. Wesley Pearson, Jr., has our thanks for his consistently high standard in the difficult task of reproducing the roentgenograms.

Mrs. Carolyn E. Kline carried out, always light-heartedly, the heavy secretarial work and the preparation of the cross-index

I am thankful to Mr. Payne Thomas of Charles C Thomas, Publisher, for his kind and full cooperation. Mr. Robert Schinneer, of the same company, has been an unfailing help in all matters connected with publication, as has the Editorial Production Department.

GIOVANNI DI CHIRO

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An Atlas of
Pathologic Pneumoencephalographic Anatomy

ILLUSTRATIONS

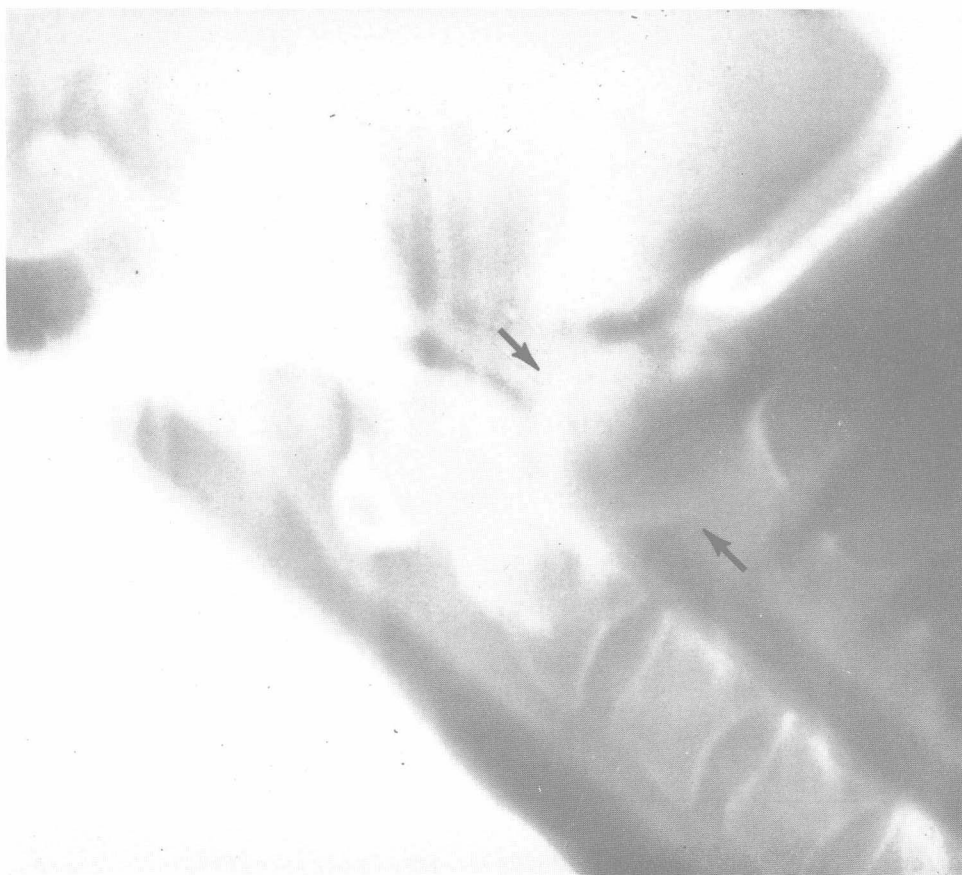
I

LESIONS BELOW AND AT LEVEL OF FORAMEN MAGNUM



Case 1

CERVICAL NEURILEMMOMA. After lumbar injection, air (arrow) outlines inferior pole of recurrent tumor at C5-C6.



Case 2

CERVICAL NEURILEMMOMA. Air outlines tumor (*arrows*) at C1-C2.



Case 3

FORAMEN MAGNUM MENINGIOMA. Air (arrows) remains trapped below tumor. This was attached to posterior rim of foramen magnum.