

Windows to the Brain: Insights From Neuroimaging

edited by Robin A. Hurlley, MD, and Katherine H. Taber, PhD.
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pages, \$84.00 (hardcover).

This book is a compendium of a series of 40 articles by Drs Hurlley and Taber, and coauthors, from *The Journal of Neuropsychiatry and Clinical Neurosciences* (JNP), the official journal of the American Neuropsychiatric Association. Throughout the book, beautiful color plates exemplify the imaging techniques and findings discussed.

Part 1 consists of chapters explaining specific imaging techniques and discussing their usefulness and applications in various disease states. These include blood flow imaging with positron emission tomography (PET); single photon emission computed tomography (SPECT); computed tomography (CT) perfusion and MR perfusion; functional magnetic resonance imaging (fMRI), specifically as related to posttraumatic stress disorder; use of drug-specific ligands; diffusion tensor magnetic resonance imaging; event-related responses; magnetoencephalography; xenon CT in assessing blood flow; and a comparison of techniques for imaging early Huntington's disease. These chapters are all well written and clear to even a clinician with limited knowledge of imaging. My one objection was in chapter 7, on xenon CT, in which the authors accepted a diagnosis of stroke based on reduced blood flow in the right parietal region, when both CT and MR studies were negative.

Part 2 deals with specific diseases, including panic attacks, bipolar affective disorder and mania, traumatic brain injury, corticobasal degeneration, metachromatic leukodystrophy, HIV, prion diseases such as Creutzfeldt-Jakob disease, carbon monoxide poisoning, Binswanger's disease, normal pressure hydrocephalus, and multiple sclerosis. Some chapters, such as the ones on corticobasal degeneration and prion diseases, have useful clinical summaries. Others have only limited clinical information, especially those on Binswanger's disease and multiple sclerosis. In Binswanger's disease, the controversy regarding the rareness of the disease, diagnosed pathologically, versus the common appearance of white matter lesions on MRI, is barely mentioned, nor do the authors present any clear criteria for diagnosing the disease. The chapter on multiple sclerosis is very short and does not provide any detail on the cognitive or behavioral manifestations, mainly discussing only the imaging features.

Part 3 deals with anatomy and circuitry, probably the section that would appear to be the least interesting for the clinician. There are, however, clinically relevant discussions on the physiology and anatomy of sleep, fear and anxiety, conversion disorders, emotional regulation, and pain, which are of interest to both psychiatrists and neurologists. The chapter on fear ties in closely to the chapter in part 2 on panic attacks.

Part 4 is called "Treatment" but contains only 3 chapters, on obsessive-compulsive disorder, schizophrenia, and surgical treatment for mental illness. These are interesting chapters, though not totally different from chapters in part 2.

Overall, the book contains a wealth of both practical and theoretical information. Its origin as separate essays shows up somewhat in the differing organization of the chapters. Some reorganization of the topics might have helped to develop a more organized theme, especially combining parts 2 and 4. For example, schizophrenia belongs more appropriately in part 2, along with bipolar affective disorder. Another problem with a compendium, as opposed to a monograph, is that it is not comprehensive. For example, there are no chapters on Parkinson's disease or Lewy body dementia, frontotemporal dementia, or even Alzheimer's disease. It would have been helpful if each chapter covered clinical manifestations, diagnosis, imaging findings, and treatment. This

would have required considerable rewriting of the original essays. As it is, the book is a useful addition to the library of psychiatrists, psychologists, and neurologists interested in brain structure and function, and especially in the contributions of imaging science. The figures by themselves make the book worth owning.

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