

Introduction

Functional Brain Alterations in Depression and Anxiety

Ned H. Kalin, M.D.

Recent advances elucidated by brain imaging techniques have greatly increased our understanding of the neural mechanisms underlying the pathophysiology of anxiety and depression. Important findings in the field were the topic of a symposium entitled "Functional Brain Alterations in Depression and Anxiety," held in Madrid, Spain, during the Xth World Congress of Psychiatry, on August 24, 1996. Areas of focus included the neural structures underlying normal emotional responses; selective alterations in regional brain function in relation to anxiety and depressive disorders; effects of antidepressants on regional brain function; functional alterations predictive of the severity of illness and treatment response; and important methodological and experimental design issues related to positron emission tomography (PET) and functional magnetic resonance imaging (fMRI) techniques.

This supplement issue of *The Journal of Clinical Psychiatry* presents the important findings discussed at this symposium. In separate reports, Dr. Eric M. Reiman, of the University of Arizona, and Drs. David Servan-Schreiber and William M. Perlstein, of the University of Pittsburgh, describe PET studies aimed at elucidating substrates of anxiety. Drs. Mats Fredrikson and Gustav Wik and Mr. Håkan Fischer of Upsala University, discuss the effects of reexperiencing traumatic events on regional cerebral blood flow. Dr. Andrew F. Leuchter and colleagues, of the University of California, Los Angeles, present quantitative electroencephalography (QEEG) and deep white-matter lesion data as predictors of response in depressed patients. Finally, my colleagues and I, of the University of Wisconsin, describe preliminary data examining the effects of venlafaxine on regional brain activity determined by fMRI.

The information presented in this publication will add to the growing body of knowledge linking functional alterations in specific brain regions to the pathophysiology of anxiety and depression.

From the Department of Psychiatry, University of Wisconsin, Madison, Wisconsin.