

## PREFACE

Severe aphasia is a devastating condition that robs individuals of the most important of human behaviors, the ability to communicate. Persons with severe aphasia, therefore, are in critical need of our help. But aphasia is a complex disorder, and its complexity increases with its severity. Helping patients with severe aphasia requires understanding of the language system and its neurological substrates, and of related neuropsychological behaviors that may be essential to the rehabilitation process.

Those of us working with adult neurogenic communication disorders are aware that individuals with severe aphasia comprise a significant portion of our clinical caseloads regardless of the setting in which we work. Many patients with left hemisphere strokes have severe aphasia in the early stages of the event, when they are being seen in acute care hospitals. Stroke patients who subsequently are transferred to rehabilitation centers often have serious aphasia. Some individuals with persistent, severe aphasia go on to chronic care facilities, while those who return home may seek the help of private practitioners. In today's medical climate, the resources allocated for treatment of aphasia are dwindling, yet adults who experience these dramatic losses of communicative ability deserve our full attention. One way in which we can try to resolve this dilemma is to stay abreast of new information concerning the diagnosis, prognosis, and treatment of severe aphasia so that we can make well-informed decisions that maximize our effectiveness in caring for this population of patients. This issue of *Seminars in Speech and Language* is directed towards that educational goal. The authors of the articles presented here come from diverse settings, and, although all have in common a strong interest in helping severely aphasic individuals, they differ in

the ways they approach this challenge. This diversity of approach seems appropriate given the complex nature of severe aphasia.

In the first article, Gail Ramsberger presents a functional perspective for the assessment and rehabilitation of severe aphasia. Dr. Ramsberger contends that while traditional aphasia tests may provide us with information useful in designing and selecting specific therapy programs, they tend to focus narrowly on language skills rather than on communication skills. Furthermore, these traditional tests fail to address important physical, mental, psychological, and environmental issues that may determine communicative success. She discusses these issues and how well they are addressed by the more "functional" assessment measures currently in use. She stresses that treatment benefits must be viewed in ecologically valid terms and that clinical tools for measuring these benefits must be developed so that severely aphasic patients will receive the services necessary for rehabilitating communication skills.

Next, Roberta Gallagher addresses the important task of assessing cognitive functions in severe aphasia. This assessment represents a distinct challenge because, as Dr. Gallagher points out, many of the tests used to evaluate cognitive functions rely on understanding or producing spoken or written language. To meet this challenge, she recommends the use of a process approach that uses a flexible battery of tests that samples a broad domain of behaviors and at the same time focuses on those skills important for making treatment decisions and predictions about recovery. Dr. Gallagher then describes the cognitive skills that should be targeted when assessing severely aphasic individuals, the tests she uses to assess these skills, and the ways she modifies these tests to maximize the performance of patients with compromised language. She concludes

her article with case examples that illustrate how the neuropsychological exam can identify important cognitive strengths and weaknesses in persons with severe aphasia.

In the third article, Marjorie Nicholas and I report on a study of patterns of language preservation and loss in global aphasia. The purpose of this study was to identify patterns of spared and impaired language abilities in a large group of globally aphasic patients tested with the Boston Assessment of Severe Aphasia (BASA). We found that, despite having severely compromised language skills, globally aphasic patients show islands of preserved ability that can be exploited therapeutically. Many of these preserved abilities, such as visual-spatial processing and interpretation and expression of emotional messages, have been associated with right hemisphere functions. The most difficult items for patients involved confrontation naming and complex verbal expression, or those skills closely associated with left hemisphere language functions. At the same time, however, the 51 globally aphasic patients were highly successful in following some verbal commands and reading some single words. We conclude with a case report that illustrates how BASA results of one globally aphasic man were used in planning a treatment program and measuring its effects.

In the fourth article, Margaret Naeser, Carole Palumbo, Errol Baker, and Marjorie Nicholas discuss CT scan lesion site analysis in severe aphasia. First, they present the results of a study that examined the relationship between recovery of spontaneous speech in nonfluent aphasia and the site and extent of a patient's lesion. They contend that predictions of which patients are likely to regain some meaningful speech and which are likely to have no recovery of verbal communication help us to choose appropriate treatment programs. Patients with good potential for verbal communication may be treated with programs that promote or improve that ability. Patients who have little or no potential for speech recovery may be candidates for programs that focus on the development of nonverbal communication strategies, such as gesturing,

drawing, or manipulation of pictured icons. In the second part of their article, Naeser and her colleagues describe the results of a study of the CT scans of patients treated with an alternative communication program called C-ViC, which stands for Computer-Assisted Visual Communication. Their goal was to discover if CT information could be used to differentiate between patients who respond well to C-ViC and those who do not. They concluded that determination of lesion localization through careful analysis of a CT scan performed after 2 or 3 months postonset may be useful in predicting a patient's recovery of speech and response to specific treatments.

In "Management of Different Forms of Perseveration in Severe Aphasia," Shannon Bryant, Patricia Emery, and I discuss a behavioral phenomenon that is common and highly problematic among severely aphasic patients. We begin by describing three types of perseveration (stuck-in-set, continuous, and recurrent) and then discuss neuropsychological and neuropathologic mechanisms that may account for these types. Clinical research has shown that certain variables can influence the extent to which aphasic individuals will persevere on various tasks. We review some of these variables and then present general strategies and specific suggestions for reducing perseveration. Finally, we describe the program called TAP, which stands for Treatment for Aphasic Perseveration. This program was designed to reduce perseveration in confrontation naming.

In the concluding article, Ruth Jones addresses the use of communication aids in severe aphasia. As Ms. Jones points out, severely aphasic patients and their families typically have difficulty accepting that a recovery of functional speech skills is unlikely and that an alternative means of communication should be pursued. Thus, the clinician must take a holistic approach when choosing an appropriate communication aid for an individual patient. This approach requires careful evaluation of the patient's skills and needs, matching of these skills and needs to the features of a particular aid, and identification of the ways in

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which the family interacts with the patient as well as their expectations and goals for future interactions. Ms. Jones addresses each of these considerations and provides us with a model for choosing and implementing the use of communication aids with severely aphasic adults.

Given the complexity of severe aphasia, the task of evaluating and treating severely aphasic patients sometimes seems overwhelming. But clinicians who read the articles presented in this issue of *Seminars in*

*Speech and Language* should find themselves somewhat less overwhelmed. The authors have provided us with new information and ideas that offer us a firmer foundation for understanding the nature of severe aphasia, for determining its impact on communication, for making prognoses as to its recovery course, and for helping patients realize their full potential.

Nancy Helm-Estabrooks, Sc.D.  
Guest Editor