

Global aphasia is caused by lesions spanning multiple areas of the brain, specifically the frontal, parietal, and temporal lobes. Patients display impairments to comprehension of language, written and verbal, and are often unable to properly verbalize. Patients with global aphasia will often resort to using non-verbal communication, such as gestures, in order to communicate.

Conduction Aphasia

Conduction-cable A-fish

Conduction aphasia is a type of fluent aphasia resulting from damage to the supramarginal gyrus of the parietal lobe. Patients who suffer from conduction aphasia may retain the ability to read and may be able to speak fluently; however, they may pause periodically due to word-finding issues and may also show difficulty with writing.

Verbal Apraxia

Verbal-mouth Ape-axe

Verbal apraxia is commonly produced after lesions in the left frontal lobe, proximal to Broca's area, in the areas that dictate motor planning. Patients often struggle with the correct pronunciation, tone, or inflection for certain words and may sometimes have to repeat the word several times before correctly stating it. These patients normally know exactly what they want to say but, due to dysfunction with motor sequencing and planning, are unable to speak consistently and accurately. For patients with severe verbal apraxia, non-verbal communication may be indicated.

Dysarthria

Broken-speech-bubble

Dysarthria is a dysfunction of the motor neurons within the brain that aid in the production of speech. The most common cause of dysarthria is upper motor neuron lesions, with the result being speech that is slurred, labored, and inarticulate.

Diagnosis

Cerebral Angiography

Brain Angel with Angiography

Cerebral angiographies are highly invasive diagnostic procedures used to observe the arteries of the brain for obstructions or narrowing. The procedure requires a catheter to be threaded from a distal site of the body up to the brain and is combined with contrast dyes to produce X-ray images which can be used to detect the risk of CVAs.

Computed Tomography

Cat-scanner

Computed tomography (CT) is a generally non-invasive procedure that is used to identify tumors, vascular malformations, and hemorrhages within the brain. CTs are able to produce extremely precise cross-sectional images of areas of the brain and are sometimes used with contrast dyes to aid in imaging.

Magnetic Resonance Imaging (MRI)

M-R-eyes

Magnetic Resonance Imaging (MRI) is a non-invasive imaging procedure that produces detailed imaging of the inner tissues of the brain. MRIs may be used to help identify damaged parts of the brain from a recent stroke; however, they are much more costly than other forms of imaging.

Intervention

Simple Short Sentences

Simple Short Sentence

Utilization of simple, short sentences is indicated in the case of patients with non-fluent aphasia, such as Wernicke's Aphasia. For these patients, words or phrases with complex syllables may easily confuse them, especially if there is additional noise in the vicinity. In such cases, therapists should ensure that background noise is kept at a minimum to improve speech comprehension.

Visual and Tactile Cues

Eyes and Tac-tiles

Visual and tactile cues are useful in communication with patients who suffer from various different aphasias to improve communication. For aphasiac patients who can read but struggle with speech, such as those with conduction or Broca's aphasia, having the patient write down what they need to say or having the therapist use tactile cueing in conjunction with instructions can ease communication issues. Patients suffering from aphasia can sometimes become agitated when they struggle to communicate, so patience will be needed to identify the best combination of cueing.

Speech Therapy

Speech-bubble Therapeutic-massage

For patients who suffer from speech difficulties secondary to aphasia, such as those with Broca's aphasia or conduction aphasia, speech therapy is one of the primary treatment options. During speech therapy, patients will re-learn how to communicate verbally as well as identify the best mode of communication, whether that be through writing or visual and tactile cues, via a trained speech therapist.
