

Goal

The purpose of this research is to consider the prospects of adapting Sign Language in the speech training for patients with Broca's aphasia.

Material and methods of research

A perspective analysis and generalization of medical and scientific literature on this topic.

The results of the research and their discussion

There are no set rules for the treatment of BA and it is often specific to the individual patients and their lifestyle requirements. For example, if stroke is the underlying cause, it is possible to achieve good results in a maximum of 6 months. Treatment for patients under this category will be different from patients who have BA as a result of tumor [3].

There is apparent connection between cortical hand movement (involving contralateral hemispheres) and speech (usually involving the left hemisphere) [4].

In regards to Sign Language, patients suffering from aphasia resulting from stroke show promise in recreating gestures in specific sequences [5].

Conclusion

When referring to the points mentioned above, there is an important relationship between the Broca's area and the motor cortex; especially in the way they influence the development of each other and the function of speech.

Sign language stands to be a right-minded approach in improving the speech and the quality of life for a person having BA as it will improve the prospects of regaining speech and simultaneously providing a convenient way to communicate with their surroundings.

Further research and clinical trials should be conducted under this promising hypothesis.

LITERATURE

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PREVALENCE OF ALZHEIMER'S DISEASE IN INDIA

Introduction

Alzheimer's Disease is the most common form of dementia. It is more common in older individuals. Alzheimer's disease is an irreversible, progressive brain disease that slowly destroys memory and thinking skills, and eventually, the ability to carry out the simplest tasks of daily living. Although scientists are learning more every day, right now, they still do not know what causes Alzheimer's disease. Thus it is an Idiopathic disease. It is estimated that by the

year 2020, approximately 70 % of the world's population aged 60 and above will be living in developing countries, with 14.2 % in India [1].

Table 1 – We can see the different stages of Alzheimer's disease as classified according to their prevalence and their characteristics

Stages of Alzheimer's disease	Pre-dementia or Mild Cognitive Impairment. Mild Neurocognitive Disorder Due to Alzheimer's Disease	Mild Alzheimer's dementia or Major Mild Neurocognitive Disorder Due to Alzheimer's Disease- Mild	Moderate Alzheimer's dementia or Major Neurocognitive Disorder Due to Alzheimer's Disease- Moderate	Severe Alzheimer's dementia or Major Neurocognitive Disorder Due to Alzheimer's Disease- Severe
Prevalence rate in India in Percentage	26.06 %	7.4 %	8.4 %	10.4 %
Characteristics	Characterized by level of cognitive decline that requires compensatory strategies and accommodations to help maintain independence and perform activities of daily living	Characterized by symptoms which mildly impair activities of daily living so that patient needs supervision over complex tasks, like managing finances etc.	Characterized by symptoms which moderately impair activities of daily living so that patient needs assistance for some of the activities	Characterized by symptoms which severely impair activities of daily living such that patient is completely dependent on others for basic needs

Goal

It is a review article which helps us to determine overall and age -specific incidence rates of Alzheimer's disease in a southern Indian province, Kerala.

Materials and methods of research

A 10-year (2001–2011) prospective epidemiologic study of community residing subjects aged ≥ 55 years at enrollment. The catchment area included four urban and semi-urban regions of Trivandrum city in Kerala, India, was selected to provide a range of demographic and socioeconomic representation. Cognitive and functional ability screening were done at baseline and 24-month follow-up assessments [5]. Consensus diagnostic procedures were done using the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, and the National Institute of Neurological and Communicative Disorders and Stroke – Alzheimer's Disease and Related Disorders Association criteria for the diagnosis of dementia and AD [2].

The results of the research and their discussion

Among the 1066 eligible participants who were cognitively normal at baseline, 104 developed dementia among them 98 with Alzheimer's Disease over a follow-up period of 8.1 years. The incidence rates per 1000 person-years for Alzheimer's Disease was 11.67 for those aged ≥ 55 years and higher for those aged ≥ 65 years. In those aged ≥ 65 years, the world age standardized incidence rate was 21.61 per 100,000, and standardized against the age distribution for the year 2000 U.S. Census, the age-adjusted incidence rate was 9.19 per 1000 person-years. Incidence rate of Alzheimer's Disease increased significantly and proportionately with increasing age. There are two categories of Alzheimer's disease biomarkers: (a) markers of brain amyloid such as positron emission tomography and cerebrospinal fluid, and (b) markers of neuronal injury like cerebrospinal fluid tau, fluorodeoxyglucose for metabolic activity, and magnetic resonance imaging for atrophy measurement. There are two types of neuropathological changes which provide evidence about disease progress and symptoms and include: (1) positive lesions (due to accumulation), which are characterized by the accumulation of neurofibrillary tangles, amyloid plaques, dystrophic neurites, neutrophil threads, and other deposits found in the brains of Alzheimer's Disease patients [4]. In addition to (2) negative lesions (due to losses), that are characterized by large atrophy due to a neural, neutrophil, and synaptic loss. Patients with severe dementia may lose the ability to walk, talk, and take care for themselves. They need

to rely on caregivers to handle even their most basic needs, including eating, washing, and going to the bathroom. They may also have difficulty in communication including telling names of things, or finding appropriate words to express themselves [3].

Table 2 – Given below explain us about the incidence rate of Alzheimer’s disease in Kerala among men and women out of respective participants

Age	Males	Females
55–59	5	20
60–64	155	222
65–69	132	146
70–74	85	106
75–79	43	63
80–84	21	35
> 85	18	15

Conclusion

1. These are the first Alzheimer’s Disease incidence rates to be reported from southern India. The incidence rates appear to be much higher than that reported from rural north India.

2. Even though Alzheimer’s Disease is a public health issue, as of now, there is only two classes of drugs approved to treat Alzheimer’s Disease, including inhibitors to cholinesterase enzyme (naturally derived, synthetic and hybrid analogues) and antagonists to N-methyl d-aspartate.

3. Alzheimer’s Disease has been considered a multifactorial disease associated with several risk factors such as increasing age, genetic factors, head injuries, vascular diseases, infections, and environmental factors (heavy metals, trace metals, and others). The underlying cause of pathological changes in Alzheimer’s disease such as A β and synaptic loss is still unknown.

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NEUROLOGICAL COMPLICATIONS ASSOCIATED WITH COVID 19 VACCINATION

Introduction

In December 2019 SARS Covid 2 was introduced to world causing pandemic situation. As of year 2023, 682 million people were diagnosed with COVID 19 and 6.826 million deaths reported worldwide. In early 2021, vaccination against COVID 19 was introduced to control