



Memory Retrieval and Significance and Functioning of Psychological Cortex

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Abstract

Memory is retrieved from the different cortex through the memory retrieval circuit. This circuit involves psychological cortex which convert them and comprehend them and send to motor speech area and person recognize it.

Objective: Memory retrieval process, Memory retrieval circuit, Mystery of psychological cortex, Significance and fate of psychological cortex.

Keywords: Neuroscience; Neuro; Neurology; Psychology; Memory

Introduction

This research covers the process of memory retrieval and significance and functioning of psychological cortex and treatment of dementia and Alzheimer diseases.

Psychical cortex

Area number 9 to 12

It forms the anterior part temporal lobe.

It connects in the retrieval memory circuit connected to the every cortex through cingulate gyrus and above corpus callosum

Memory retrieval circuit

Step 1: Memory stored in the various cortex travel through psychological cortex

Step 2: In psychological cortex memory is converted into visual memory

Step 3: Memory travel in hippocampus and converted into the recent memory

Step 4: Recent memory is comprehended in speech area wernick area

Step 5: Memory get retrieved.

Photo visual memory process

Step 1: Memory received from retina

Step 2: Passes through psychological cortex that is anterior lobe of temporal lobe

Step 3: Memory travel through hippocampus

Step 4: Recent memory is comprehended in wernicks area

Step 5: Memory is visualized for seconds when eyes are closed.

Auditory memory

Step 1: Memory received from a pattern

Step 2: If same pattern is stuck or visualize in brain

Step 3: The memory stored in Auditory cortex

Step 4: Travel through psychological cortex and get comprehend

Step 5: Memory is retrieved

Olfactory memory

Step 1: Memory received from a olfaction

Step 2: If same type of olfaction is received in brain through Olfactory nerve

Step 3: Memory stored in Olfactory cortex

Step 4: Travel through psychological cortex and get comprehend

Step 5: Memory get retrieved.

Taste memory

Step 1: Memory received from the taste

Step 2: If same type of taste received brain stimulates through hypoglossal

Step 3: Memory stored in gustatory area b

Step 4: Travel through psychological cortex and get comprehend

Step 5: Memory get retrieved.

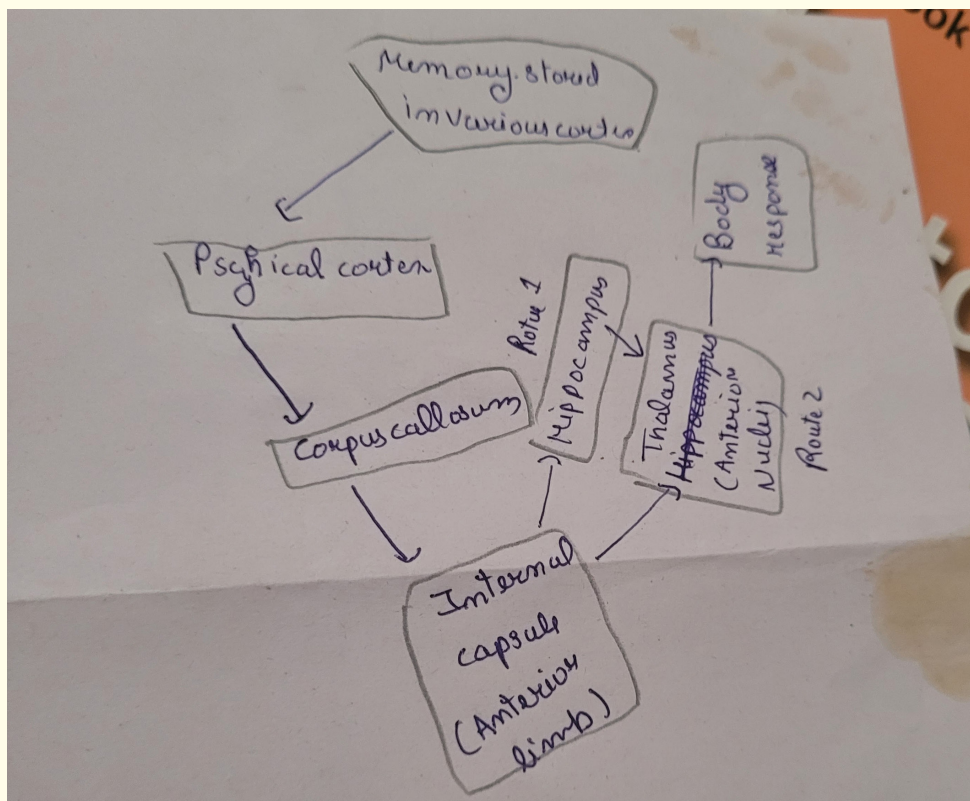


Figure 1: Memory retrieval circuit.

Figure 1 shows about memory retrieval circuit routes.

Route 1: It includes hippocampus as in this route hippocampus convert longterm memory into the recent memory for retrieval.

Step 1: Memory received from cortex

Step 2: Travel to psychical cortex and gets comprehend

Step 3: Travel to corpus callosum than to internal capsule

Step 4: Travel to hippocampus and gets converted into recent memory and gets retrieved

Route 2: This type of circuit involves in sudden memory in which sudden response is required

Step 1: Memory stimulus received

Step 2: Travel to psychical cortex and gets comprehend

Step 3: Travel to corpus callosum than to internal capsule

Step 4: Go to anterior nucleus of thalamus and get retrieved.

Function of psychical cortex

The main Function of psychical cortex area 9 to 12 or anterior lobe of temporal lobe.

This area play a main role in the memory retrieval circuit as it act as a comprehend circuit it combines and comprehend the memory stored in the cerebral cortexes

Significance of psychical cortex

The main Significance of psychical cortex is that it helps in comprehension combination of various memory from different areas of cerebral cortex.

Dementia treatment

Aim: To study eeg of dementia patients

Material required: eeg graph of dementia patient [1].

Methodology

Basically eeg graph is to study varies brain pattern of the person

Theta wave gives the identification of memory retrieval and its process

Eeg graph used in studying the various waves pattern of patients

Theta waves are studied to check the problem of the patient

Alertness of mind and Psychological diseases are interlined with area 9 to 12 which is the psychical cortex
 Psychical cortex is the anterior lobe of temporal lobe
 It comprehends the memory which is less functioning in the dementia case

Observation

On studying the dementia patients eeg graph shown below.



Figure 2: eeg graph of dementia.

We observe irregular wave pattern of theta wave which determines the convulsions

Confusion and split brain in dementia patient. It also give records of the forgetfulness
 Of dementia patients the more the irregular is wave pattern more is the forgetfulness [2]
 Of dementia patients.

Treatment of dementia patients.

As dementia is a temporary condition. As patients is in depression [3].

Treatment can be given in two ways

Psychological way: In this patients is given a Psychological therapy by understanding a Mental situation of patients and asking his / her problem and resolving its problem. In his/her own way or your own way be like his/her

Symptomatic treatment: This treatment includes drugs which excites the neuron and treatment given is antidepressant which makes patient to come out from dementia and Resolve his/her problem to lead his/her normal life [4]

Alzheimer diseases treatment

Aim: To study eeg graph of Alzheimer diseased patient

Material required: eeg graph of Alzheimer diseased patients.

Methodology

Alzheimer diseases is the basically a degenerative disease in which neurons gets degenerate
 Entangles occur in the neurons in Alzheimer disease
 Symptoms included forgetfulness, loss of basic skills, depression
 Eeg pattern of patient is studied [5].

Observation

It shows eeg of Alzheimer diseased patients showing eeg of the patient with Alzheimer diseases.

In Alzheimer disease patient Alertness goes and memory retrieval and storage circuit affected as the theta wave pattern is nil here shows in the figure even theta wave are not produced in frontal lobe shows that area 9 to 12 or psychical cortex are also affected.

Treatment

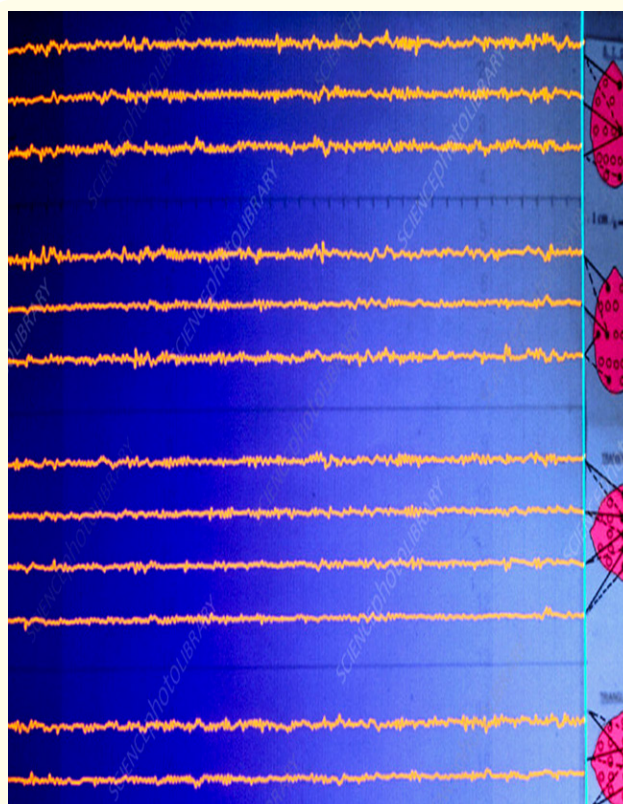


Figure 3: eeg graph of Alzheimer diseased patients.

Treatment is only by one way is that Regeneration cell therapy.

As cell has a DNA code and it's DNA act as a architecture so a DNA from patient body can be used as a source for Regeneration of cells and lead to treatment for patient with Alzheimer diseases

Treatment of parkinsonism diseases [6]

Aim: To study eeg of parkinsonism diseased person

Material required: eeg graph of parkinsonism diseased person.

Methodology

Parkinson's diseased person works slowly

Parkinsonism is the case in which dopaminergic neurons gets exhausted

Eeg graph is used to study gama wave to see the irregularity of dopaminergic neurons

Also sense the Alertness and focus of the patient

Observation

Are regular pattern but on careful observation we observe a early

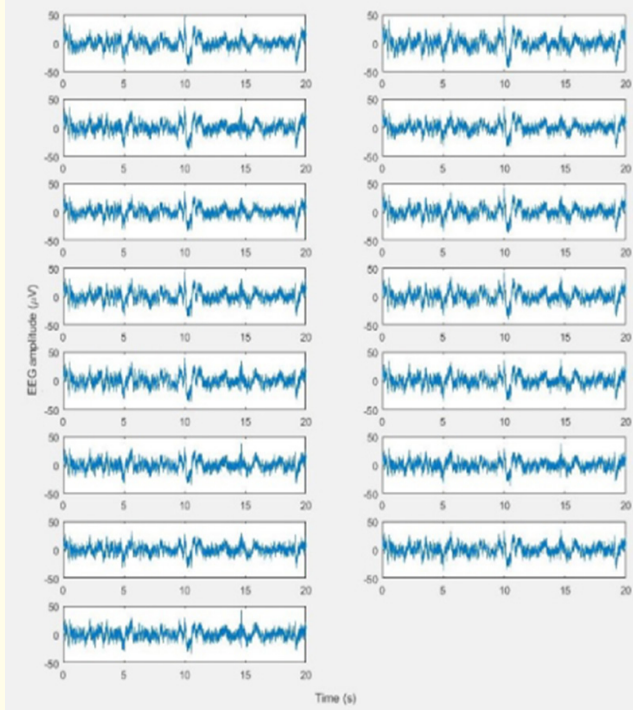


Figure 4: eeg of parkinsonism diseased patients shows early parkinsonism diseased patient in which the gamma waves.

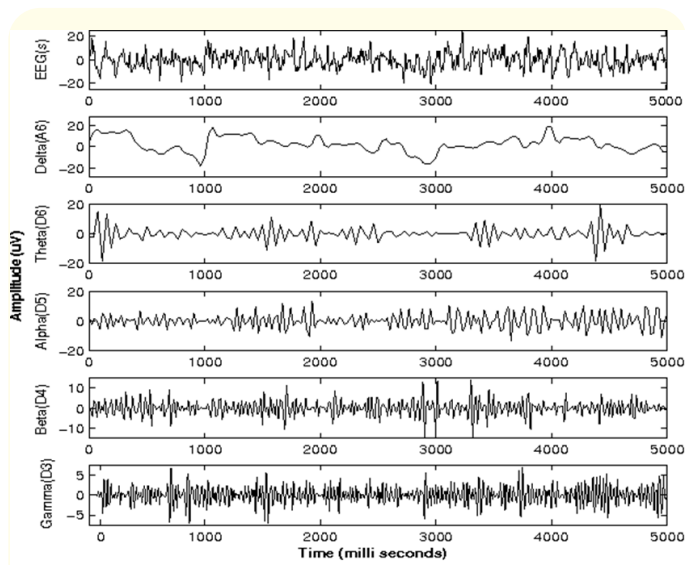


Figure 5: eeg of wavelet of parkinsonism diseased patients shows different wavelet and clear picture of eeg in which we can observe.

lurching gate [7].

Pattern in the gamma waves.

The lurching gate pattern in gamma waves and this figure tells about the patient functional defect in the dopaminergic neurons which is shown that on giving stimulus neuron excites but less tells about exhaustion of neurons in the patient.

Treatment

Parkinsonism Symptomatic treatment is known by giving L dopamine [8]

Proper treatment of parkinsonism diseased patients can be done generating more

Dopamine synthesizing neuron through stem cell therapy also by implanting more dopaminergic neurons in the patient through stem cell therapy

By making body synthesizing more dopamine by catacholamine decomposition [9].

Discussion

Discussion was conducted on

Eeg of dementia

Eeg of parkinsonism

Eeg of Alzheimer diseased patients [10]



Figure 6: eeg graph of parkinsonism shows about the proper parkinsonism diseased patient in proper irregular pattern of gamma waves are visible which tells full exhaustion of dopaminergic neurons and less excitation of dopaminergic neurons which makes people less excitable towards their works.

Proper patients history were taken and proper eeg and studies were performed.

Conclusion

That psychical area helps in the comprehension and retrieval of memory
 And injury of this can lead to the Alzheimer diseases and also stem cell therapy can
 Be used for the treatment of parkinsonism, Alzheimer’s Disease and dementia.

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Contributions of author Kunal Joon

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Experimentation

Data analysis

ICMJE statement

Declaration that the article is according to the format

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Data Availability

Data cannot be made available for reasons in disclosed in the data availability statement as the patient don’t allow to make it public.

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