



TRANSIENT GLOBAL AMNESIA (TGA)

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CLINICAL PRESENTATION

Transient global amnesia (TGA) presents with

- Sudden onset amnesia (anterograde >>> retrograde)
- Repetitive questioning, not fully oriented to place and time but oriented to person.
- Resolves within 24 hours (Usually within 12hrs)
- With no other neurological impairment.
- Age: 50-70yrs (rarely <40yr), M=F

ETIOLOGY AND CLINICAL ASSOCIATIONS

- **PREDISPOSING FACTORS:**

- Migraine, focal ischemia, venous flow abnormalities (CVT), and epileptic phenomena.
- Multiple TGA episodes (≥ 2) have a higher association with carotid atheroma and IHD.

- **PRECIPITATING FACTORS:**

- Emotional stress, physical exertion, water contact, and temperature change

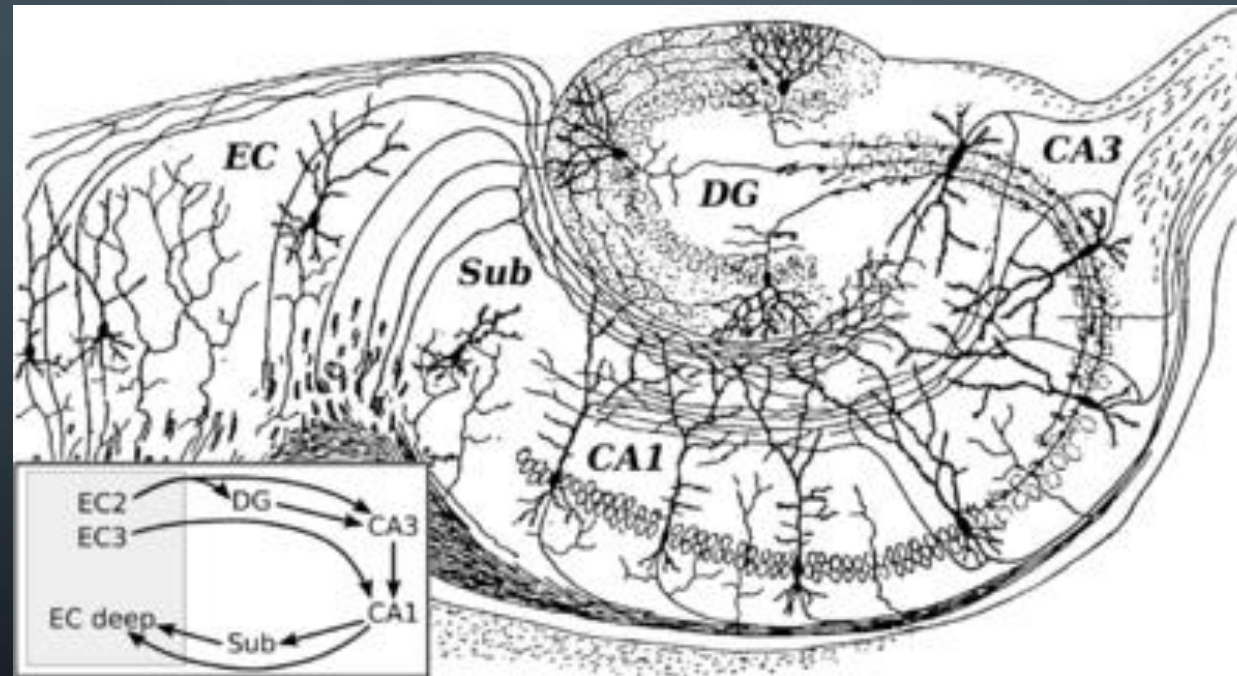
- **ASSOCIATION WITH MALIGNANCY:**

- Zafar A et al. suggested an association between malignant B cell lymphoma and TGA.

PATHOPHYSIOLOGY OF AMNESIA:

-Hippocampal cornu ammonis 1 neurons (CA1) in the hippocampus proper, are innately vulnerable to metabolic stress leading to an impairment of memory in patients with TGA.

Fig.1. *Hippocampal formation:*



DIAGNOSING TGA

CLINICAL:

- Hodges and Warlow criteria for TGA (1990)

- Attacks must be witnessed
- There must be anterograde amnesia during the attack
- Cognitive impairment limited to amnesia
- No clouding of consciousness or loss of personal identity
- No focal neurological signs/symptoms
- No epileptic features
- Attack must resolve within 24 hours
- No recent head injury or active epilepsy

RADIOLOGICAL:

- T2 alterations in bilateral/unilateral **hippocampal formation** is observed in patients with TGA. (appears after 20hrs)

DIFFERENTIAL DIAGNOSIS

- Transient epileptic amnesia (TEA)
- Transient Ischemic attack (Involving the PCA, the hippocampus)
- Dissociative amnesia
- Hypoxic states: Vascular involvement (vertebrobasilar or aortic system involvement)
- Acute confusional state (ACS)

TREATMENT

- Self limiting disorder, with amnesia usually lasting <6hr.
- Lack of clear pathophysiology and lack of evidence based therapy, leaves no room for treatment.

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THANK YOU