

# The Role of CGRP and the Trigeminal System in Migraine Pathophysiology

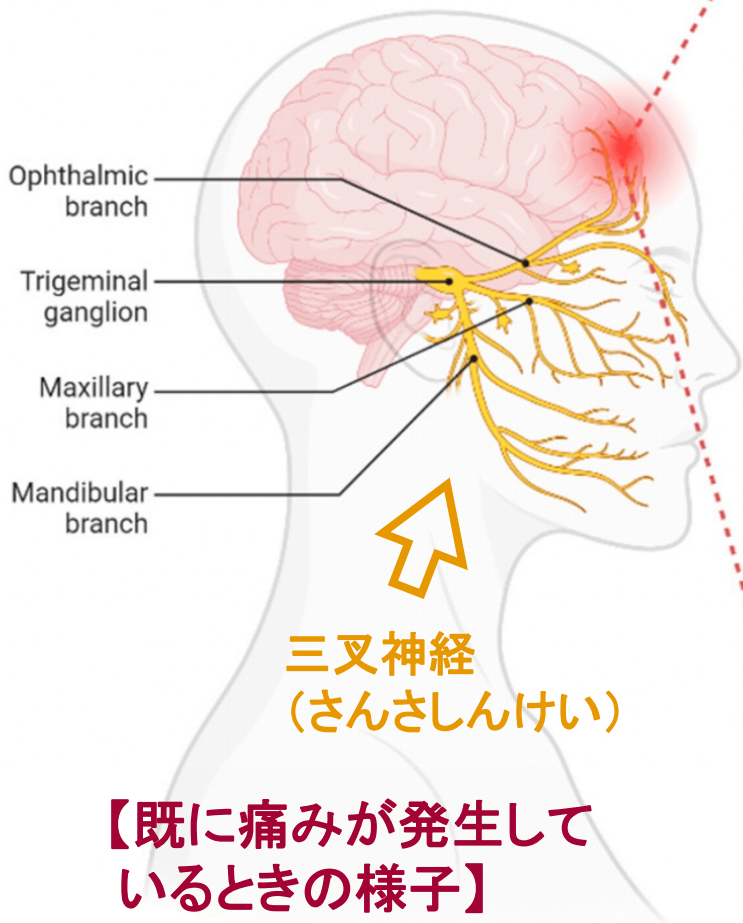
(片頭痛の病態生理学における CGRP と三叉神経系の役割)

<作成:stnv基礎医学研究室>

## (1. 三叉神経血管系)

### 1. The Trigeminovascular System

Nociceptive fibers originating from the trigeminal ganglion innervate the meninges and large cerebral arteries.



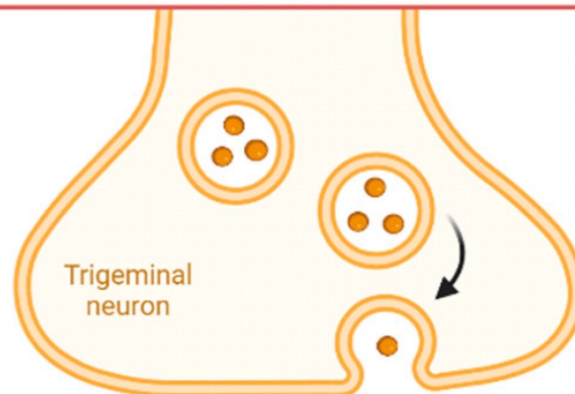
【既に痛みが発生しているときの様子】

(原図の出典: Neurol. Int. 2023, 15(3), 1052-1105)

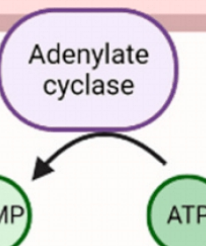
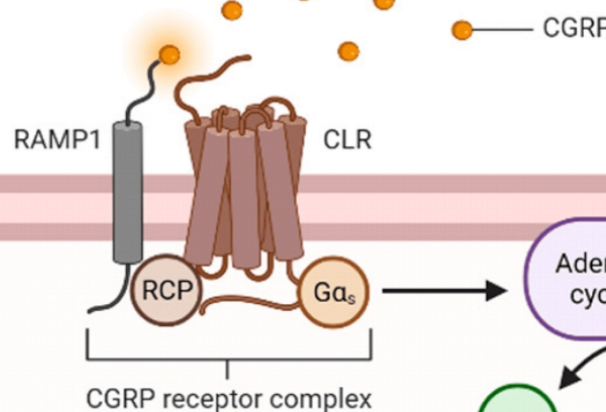
## (2. 三叉神経血管経路の活性化)

### 2. Trigeminovascular Pathway Activation

Nociceptive neurons are stimulated and release calcitonin gene-related peptide (CGRP).



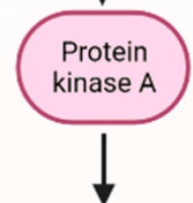
カルシトニン遺伝子関連ペプチド (calcitonin gene-related peptide、略:CGRP)



## (3. 周囲過敏)

### 3. Peripheral Sensitization

The release of CGRP result in meningeal vasodilation, leading to the phenotypic expression of migraine.



Vasodilation <血管拡張>

Cerebrovascular smooth muscle cell