

# Anti-AMPAR antibody encephalitis

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### What is anti-AMPAR antibody encephalitis?

Encephalitis associated with antibodies against alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid receptor (AMPAR) is a rare type of antibody-mediated autoimmune encephalitis. It is more common in older women.

AMPAR is a type of receptor responsible for the transmission of brain signals which are important for memory and learning. Compared to other types of encephalitis, anti-AMPAR antibody encephalitis is more likely to have an underlying tumour associated with the disease.

#### Symptoms

Most people experience:

- Memory problems
- Confusion
- Difficulties with concentration
- Seizures
- Mood and behaviour changes
- Motor function changes

Over half of patients present with tumours (e.g., lung, thymoma, breast, ovarian teratoma). More unusual symptoms such as dysphagia (difficulty swallowing) and deafness have also been reported.

#### Diagnosis

AMPAR antibodies in the cerebrospinal fluid (CSF) are crucial for diagnosis. Brain magnetic resonance imaging (MRI) is abnormal in most patients, though no specific patterns are recognised. As most patients present with a tumour, intensive tumour screening is recommended.

#### Treatment

Treating anti-AMPAR encephalitis involves immunotherapy and management of any associated tumours. Immunotherapy options may include corticosteroids, intravenous immunoglobulin (IVIG), and plasma exchange. In some cases, second-line treatments such as rituximab or cyclophosphamide may be necessary.

Tumour screening and removal, if present, are crucial as they can trigger the autoimmune response. The condition may also be triggered by various factors including infection by bacteria, viruses, protozoa, and fungi.

#### Outcomes

Outcomes vary significantly between patients. Some may experience full recovery, while others may have lasting effects. Some people may experience relapse in symptoms.

Some people may need rehabilitation and ongoing care to manage persistent symptoms. In rare, severe cases, the condition can be life-threatening.

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Thank you!

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