Healthcare provider discussion guide on ARIA

ALZHEIMER'S DISEASE (AD)

AD is a neurodegenerative disease that causes problems with memory, language and thinking. You may know these symptoms as dementia[1,2]

Biological changes occur in the brain of people with AD. This includes a build-up of **toxic** protein clusters called **amyloid plaques**, which may lead to **loss of brain function and the symptoms of AD**[1]

Amyloid-related imaging abnormalities or "ARIA" are a consequence of the presence of amyloid in cerebral blood vessel walls (cerebral amyloid angiopathy [CAA]). CAA can cause spontaneous ARIA in patients with AD[3]

Monoclonal antibodies target and **remove toxic amyloid plaque** from the brain to try and slow disease progression.[4] Monoclonal antibodies that remove amyloid plaque increase the risk of ARIA[5,6]

ARIA IS A COMMON ADVERSE EVENT OF MONOCLONAL ANTIBODIES THAT REMOVE AMYLOID PLAQUE[5,6]

ARIA events are believed to be **caused by leakage from clearing amyloid from blood vessels** in the brain[5]

They present as **short-term** fluid build-up in the brain (ARIA-E [edema/effusion]), sometimes with small spots of bleeding in the brain or on the surface of the brain (ARIA-H [hemosiderin/hemorrhage])[5,6]

These changes are visualized on MRI scans. **CT scans** are usually **insufficient** for detecting/visualizing milder signals of ARIA[5]

MRI SCANS ARE NEEDED TO CHECK FOR BRAIN ABNORMALITIES BEFORE TREATMENT AND TO MONITOR FOR ARIA DURING TREATMENT[6]

KEY DISCUSSION POINTS TO HAVE PRIOR TO INITIATION OF MONOCLONAL ANTIBODIES THAT REMOVE AMYLOID

APOE ε4 IS A RISK FACTOR FOR AD AND FOR ARIA[7,8]

- It is important to discuss testing for *APOE ε4* status and provide genetic counselling to address the implications of the findings for the patient and family
- Having one or two copies of a specific gene – *APOE ε4* – is a risk factor for ARIA
- The recommendations on the management of ARIA do not differ between *APOE ε4* carriers and noncarriers

PATIENTS RECEIVING ANTITHROMBOTICS OR THROMBOLYTICS[9–11]

- Antithrombotics or thrombolytics are associated with an increased risk of intracerebral hemorrhage
- Intracerebral hemorrhages have been observed in patients receiving monoclonal antibodies that remove amyloid plaque; therefore, **caution should be exercised**
- The patient and care partner should be informed of the possible elevated risk of bleeding in the brain with the use of monoclonal antibodies that remove amyloid plaque

IN MOST CASES, ARIA IS ASYMPTOMATIC. HOWEVER, SOMETIMES ARIA PRESENTS THESE SYMPTOMS:[7,12]

MOST FREQUENT

- Headache
- Confusion and dizziness
- Neuropsychiatric symptoms
- Nausea

LESS FREQUENT

- Gait disturbance
- Visual disturbance / blurred vision

UNCOMMON

- Seizure

REMIND PATIENTS TO URGENTLY REPORT SYMPTOMS

MRI FINDINGS FOR ARIA CAN OCCUR IN THE ABSENCE OF SYMPTOMS[5,7]

Therefore, timely follow-through on scheduled MRI appointments as part of monitoring for ARIA is very important

HOW TO MANAGE IN CASE OF ARIA?

- Most cases of ARIA resolve on MRI without concomitant treatment[12]
- Depending on the concomitant treatment of ARIA, treatment may continue or be stopped (for a period or indefinitely), with continued MRI monitoring until resolution[11] – please refer to the appropriate prescribing information
- In some cases, ARIA can be serious and may require hospitalization or additional treatment for ARIA[7]

ALZ-NET (Alzheimer's Network for Treatment and Diagnostics) is a voluntary provider-enrolled patient registry that collects information on treatments for Alzheimer's disease.
For more information please scan the QR code or visit the website: https://www.alz-net.org/

This educational piece is to be used as a visual guide for HCPs only; not intended for distribution to patients

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ABBREVIATIONS:
APOE ε4, Apolipoprotein E ε4; AD, Alzheimer's disease; ARIA, amyloid-related imaging abnormalities (includes ARIA-E and ARIA-H); ARIA-E, ARIA-edema/effusion; ARIA-H, ARIA-hemosiderin/hemorrhage; CAA, cerebral amyloid angiopathy; CT, computed tomography; HCP, health care professional; MRI, magnetic resonance imaging.

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