

Case Report: “Adverse Reaction Following Intravitreal Administration of Aflibercept”

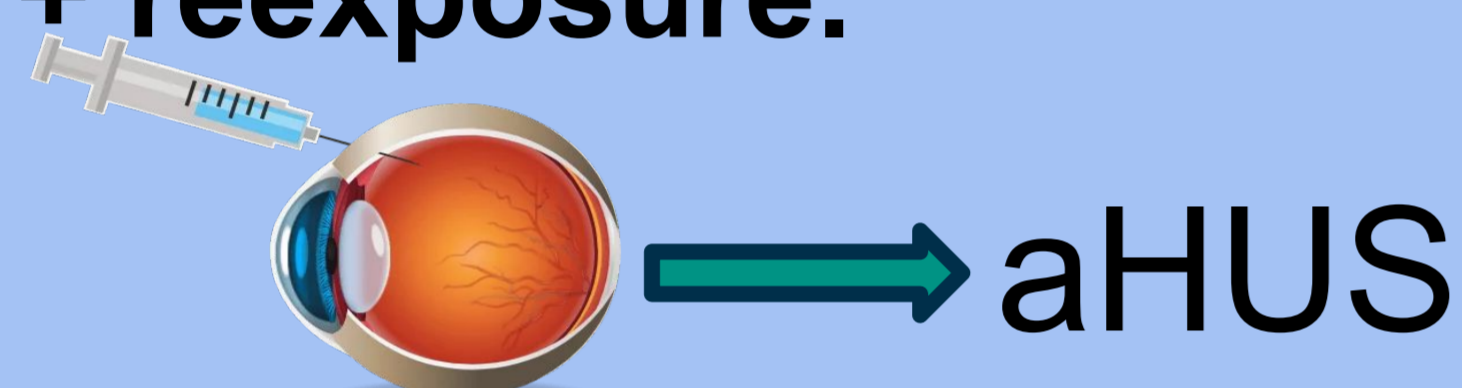
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Background and Importance

Atypical hemolytic uremic syndrome (aHUS) is a rare disease characterized by a classic triad of microangiopathic hemolytic anemia, thrombocytopenia and acute kidney injury. Its diagnosis is made using exclusion criteria, as it can be easily confused with other microangiopathic disorders, such as thrombotic thrombocytopenic purpura (TTP), for which the activity of the enzyme ADAMTS13 is evaluated, and typical HUS, which is usually caused by the Shiga toxin of *Escherichia coli*.

Aim & Objectives

The **first administration** of aflibercept triggered aHUS. After the **second dose** the patient had a **+ reexposure**.



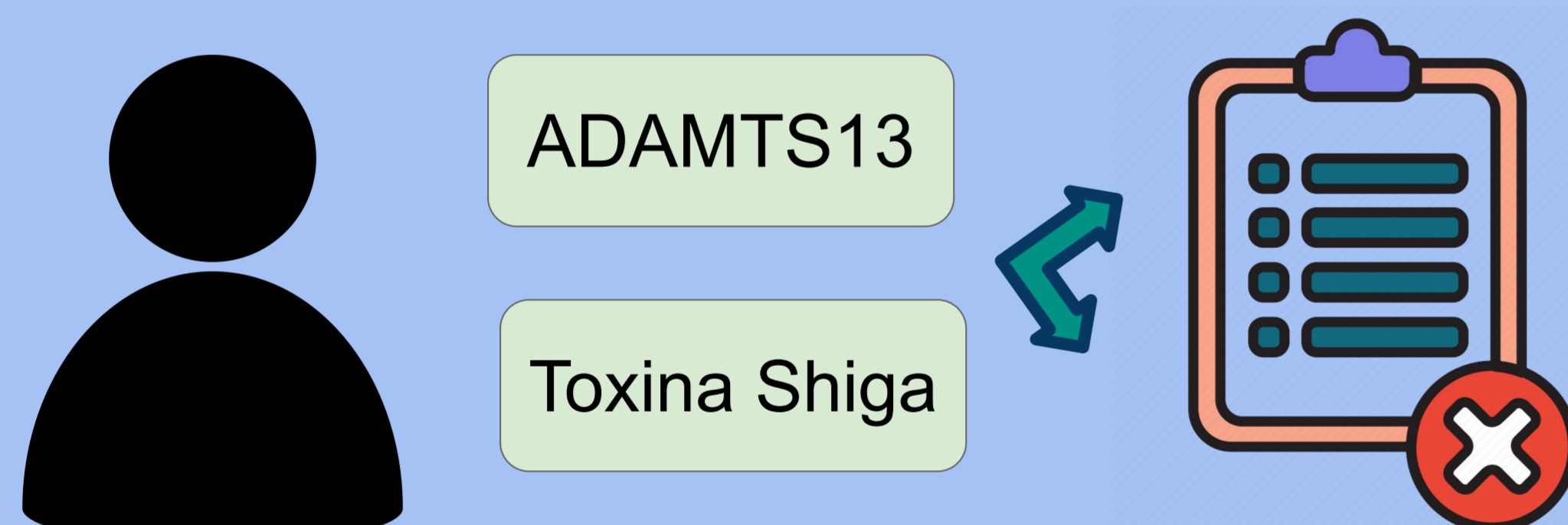
Age-related macular degeneration (AMD) by intravitreal injections

FOLFIRI scheme in oncology

Aflibercept's uses

However, the main problem lay in the **lack of understanding** of the **pharmacokinetics** when **administered intravitreally**. Although administration is local, aflibercept can be absorbed systemically, inhibiting vascular endothelial growth factor (VEGF) and triggering adverse effects such as aHUS.

Material & Methods



Biochemical evaluation:

- Acute renal failure (Cr_s=4,75 mg/dL)
- Thrombocytopenia (102,000 platelets/uL)
- Non immune hemolytic anemia (↑ LDH y Hb = 11g/dL)
- C3 = 51 mg/dL

Results

- After both episodes, **ECULIZUMAB**, was administered to reverse the condition and promote recovery from the adverse event, resulting in a **positive response after the first administration**.
- **Re-exposure to aflibercept** triggered a more **severe episode**, necessitating **prolonged patient monitoring**, primarily under the supervision of the nephrology team

Conclusion and relevance

A review of pharmacovigilance databases such as FEDRA, Eudravigilance, and Vigibase revealed that three cases of aHUS have been reported in connection with the administration of aflibercept. This highlights **the importance of monitoring for potential systemic effects of intravitreal treatments**, especially in patients who might be predisposed to developing serious complications such as aHUS.

