Eculizumab: Inhibits C5 - Dry AMD Intravitreal

Eculizumab (Soliris, Alexion Pharmaceuticals) is a humanized monoclonal antibody derived from a murine antihuman C5 antibody.

Eculizumab specifically inhibits the terminal complement protein C5, thereby preventing its cleavage to C5a and C5b during complement activation.

The strategic blockade of the complement cascade at C5 prevents the release of the downstream anaphylatoxin C5a and prevents the formation of the cytolytic membrane attack complex (MAC).

Eculizumab is FDA-approved for the intravenous treatment of another complement-mediated disease known as paroxysmal nocturnal hemoglobinuria.

Currently a phase II study with eculizumab for the treatment of patients with dry AMD, known as the Complement Inhibition with Eculizumab for the Treatment of Non-Exudative Age-related Macular Degeneration (COMPLETE) Study.[(57)]

Patients with GA or high-risk drusen are being randomized 2:1 to receive intravenous infusions of eculizumab or placebo.

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