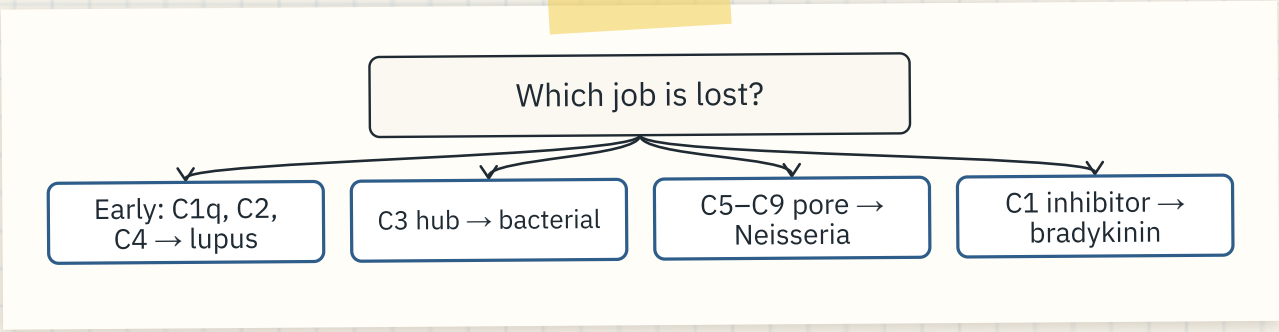
Complement deficiencies

Predict the disease from the job that is lost



Step by step

1. Name the job that is lost.
2. Early classical: debris and immune complexes linger.
3. C3: no opsonisation.
4. C5 to C9: no pore, so Neisseria.
5. C1 inhibitor: no brake, so bradykinin.

Missing	What follows
Early classical (C1q, C2, C4)	Lupus-like autoimmunity
C3	Severe recurrent bacterial infection
C5 to C9	Recurrent Neisseria
C1 inhibitor	Angioedema (bradykinin); C4 usually low, C3 normal

Deficiency and what follows

Rule of thumb

The infection pattern follows the job that is lost.

The clue is the organism and the repeat: Neisseria, again.

Exam traps

- Bradykinin, not histamine, causes the swelling: no hives, antihistamines fail.
- CH50 is absent in early classical, C3 and C5 to C8 deficiencies, only reduced in C9.
- Terminal deficiency spares opsonisation, so ordinary infections are not the problem.

Complement deficiencies: C1q, C3, C5–C9 and C1 inhibitor

Video, written lesson, practice question and sources: medservatory.com/usmle-step-1/immunology/complement-deficiencies-c1q-c3-c5-c9-c1-inhibitor

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