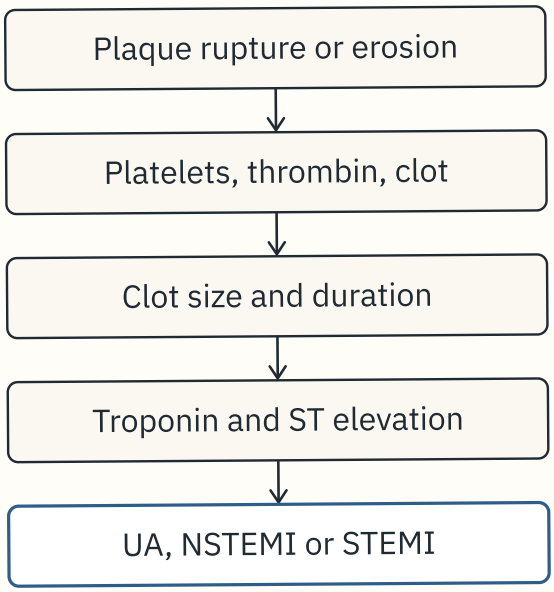
Plaque to ACS

Unstable angina vs NSTEMI vs STEMI



Step by step

1. Thin cap + big lipid core = vulnerable plaque, not necessarily tight
2. Rupture: cap tears, red fibrin-rich clot
3. Erosion: cap intact, endothelium lost, white platelet-rich clot
4. Clot size and duration decide the syndrome
5. Early troponin can be normal: repeat it

Syndrome	Clot	Troponin	ST elev.
Unstable angina	Small, flickering	Normal	No
NSTEMI	Partial or brief	Raised	No
STEMI	Usually full block	Raised	Yes

Clot size sorts the syndrome

Two questions

Troponin raised? No, and no ST elevation = unstable angina. Yes = infarction.

ST elevation? Yes = STEMI, no = NSTEMI.

Exam traps

- Rupture is the usual cause of STEMI; erosion is more often NSTEMI.
- One normal early troponin does not rule out infarction.
- A vulnerable plaque need not be tight.

Unstable angina vs NSTEMI vs STEMI: from plaque to ACS

Video, written lesson, practice question and sources: medservatory.com/usmle-step-1/cardiovascular/unstable-angina-nstemi-stemi-acs

For exam study only, not medical advice. Follow local guidelines and your lab's ranges.
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