

Emphysema

- defined based morphological And Radiological features.
- 4 Major subtypes
 - centriacinar → uniform enlargement of the Acini
 - paracicinar → sparing periphery
 - distal Acinar → sparing periphery
 - Irregular Acinar → Acini Irregularly enlarged
- centriacinar emphysema: (H.C.)
 - Affect upper lobes

Pathogen → In

Pathogenesis → Im b/w protein And Antipeptides

→ Disrupt oxidative stress

Long term imbalance b/w
peptides And Antipeptides.

↓
This balance is disrupted is

→ Peptide Activity → decreased

↓
Impaired by
oxidative stress And
inflammation

↓
leading to
destruction of
Alveolar walls And
Increased Airspace
emphysema

Cause → smoking

Alcoholism

ROS

Smoking / Air Pollution / Anti Antigenic Def

Activation of Macrophages

Release of Proteases

Release of ROS

Protease

Antiprotease
Anti Angiogenesis

Destruction of elastin & ECM

Apoptosis of Alveolar
Epithelial Cells

Loss of elastic Recoil

Prevent Alveolar Enlargement

Features of Emphysema (Hyperinflation, Air
Trapping, Barrel chest)