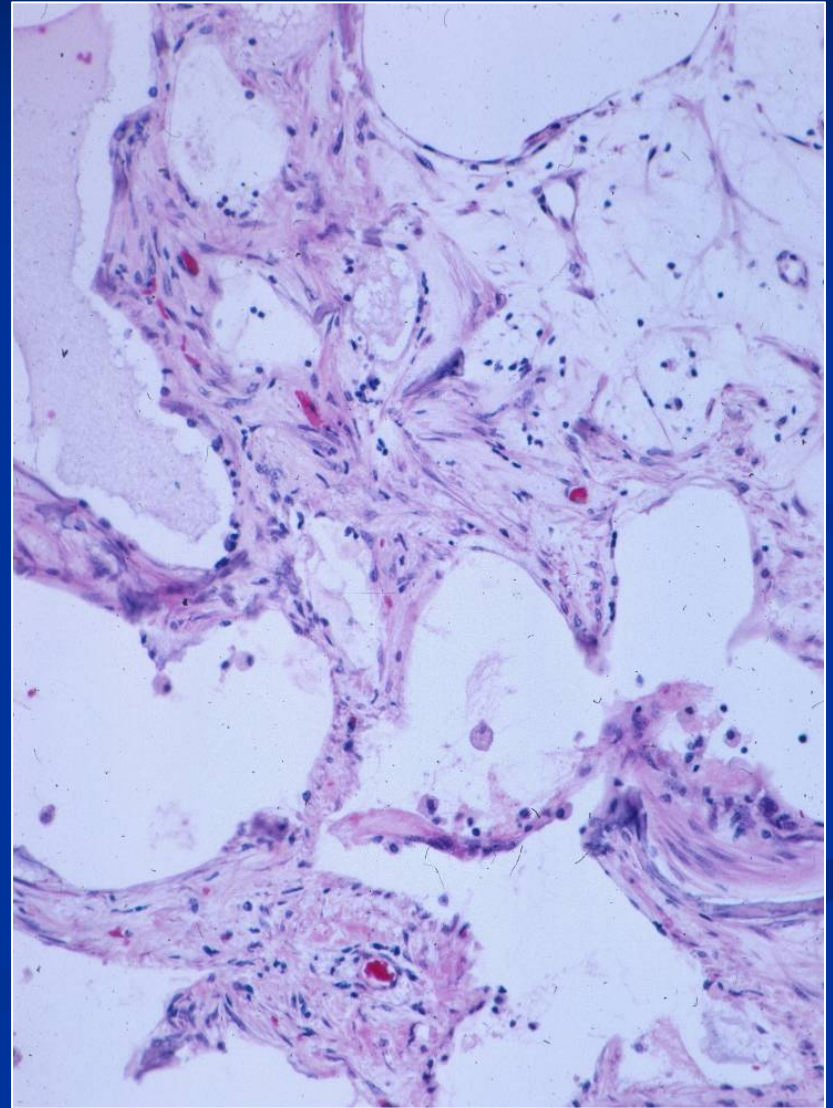
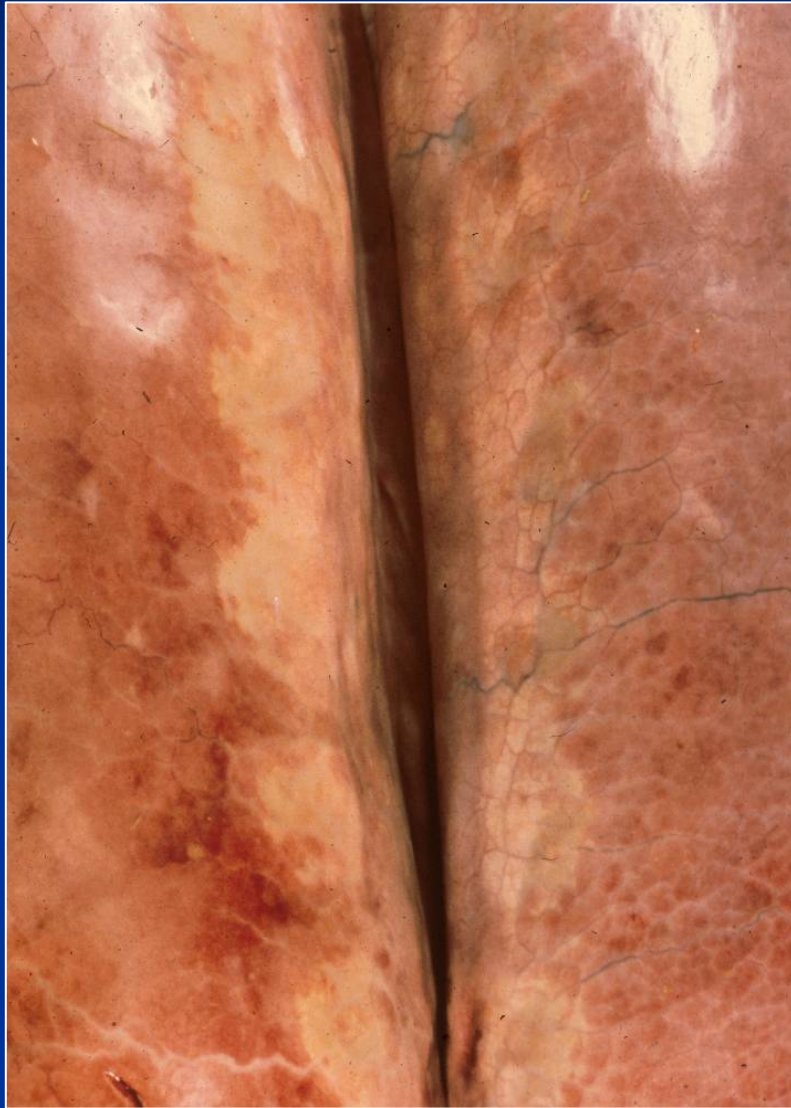


Pulmonary Mineralization

- Etiology
 - Hypervitaminosis D
 - Calcinogenic plants
 - *Solanum malacoxylon* (“Manchester wasting disease”)
 - *Cestrum diurnum*

Vitamin D Toxicity – Horse

Mineralization and fibrosis



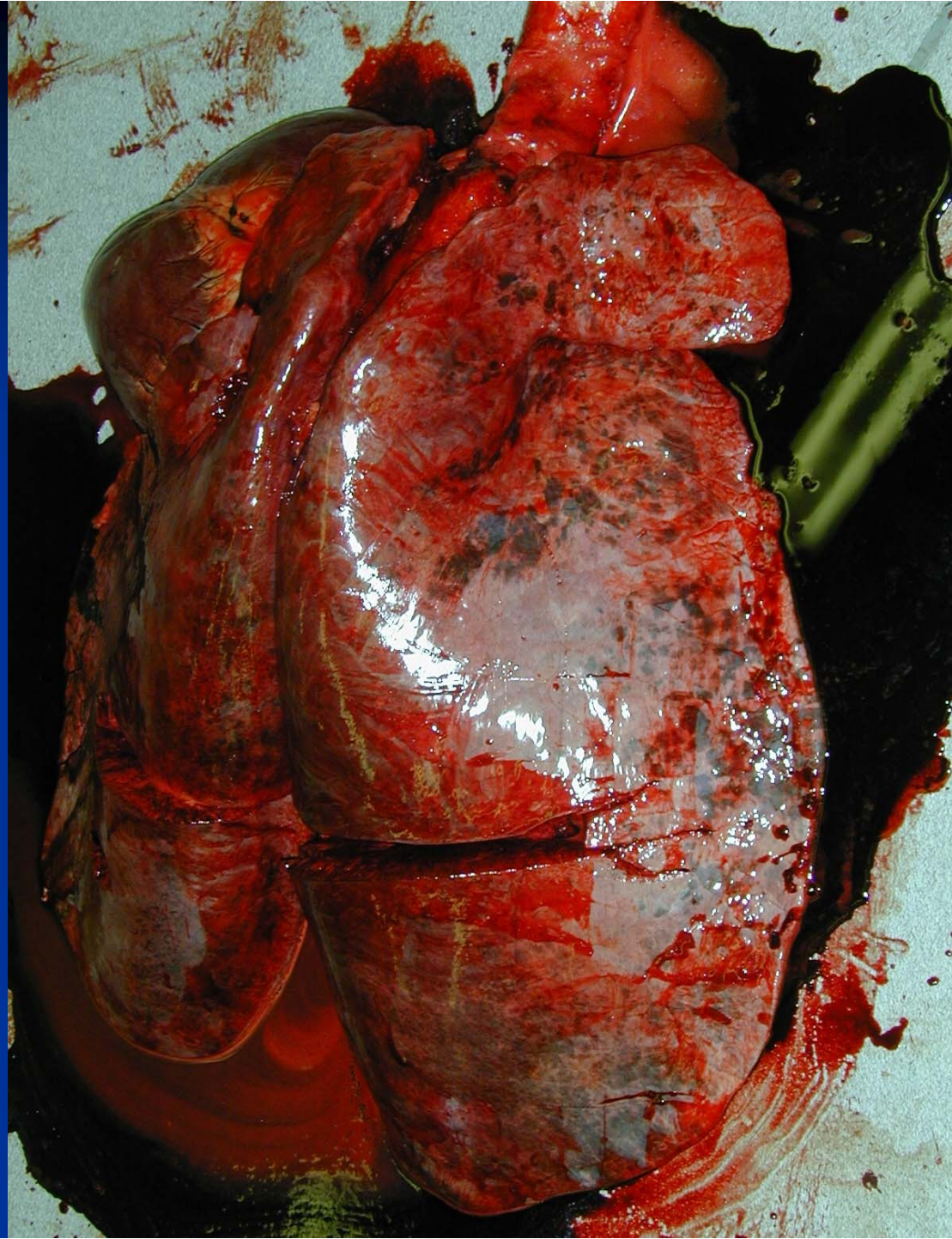
Exercise Induced Pulmonary Hemorrhage (EIPH)

- Occurs after exercise in race horses worldwide
- High incidence on bronchoscopy e.g. 80%
- Clinically observed as epistaxis
- Occasionally fatal
- Possible cause – high pulmonary vascular pressure during racing, preexisting lung injury

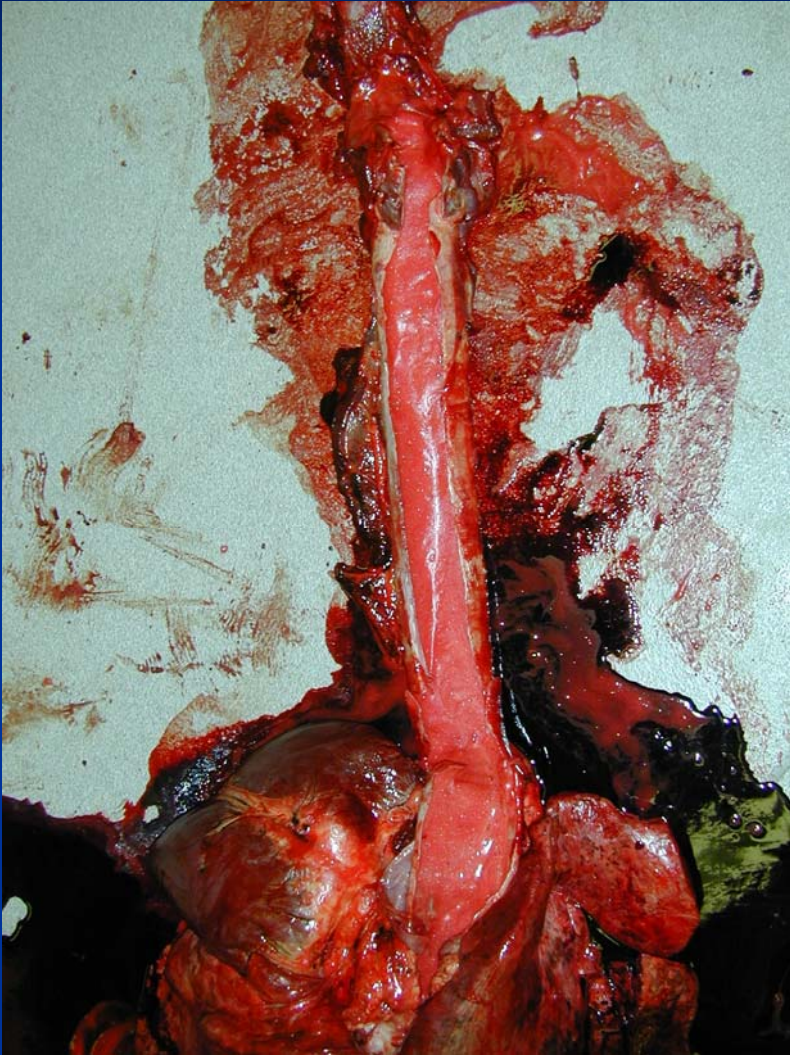
Exercise Induced Pulmonary Hemorrhage (EIPH)

- May be difficult to make gross diagnosis due to autolysis
- Discoloration of lung
- Histologically see alveolar hemorrhage, hemosiderosis, possibly fibrosis

EIPH



EIPH



Pulmonary Edema

- Cardiogenic
 - Toxicants
 - White snakeroot - *Eupatorium rugosum*
 - Monensin/Rumensin
 - Avocado
 - Oleander, Japanese yew – generally die without lesions
- Anaphylaxis
 - Penicillin, vaccination
- Smoke inhalation
- Differentiate from acute interstitial pneumonia e.g. Hendra virus, which may appear primarily as edema

Aspiration Pneumonia

- Etiology/predisposing factors
 - Anesthesia
 - Improper tubing (oil, medication)
 - Prenatal stress – amniotic fluid and meconium
 - Associated with syncytial cells in some cases

Infectious Disease

- Viral
 - Intersitial/bronchointerstitial pneumonia
- Bacterial
 - Bronchopneumonia
 - Granulomatous pneumonia
- Mycotic
 - Intersitial to granulomatous pneumonia
- Parasitic
 - Granulomas
 - Eosinophilic bronchitis

Viral Infectious Disease

- Generally mild and transient
- Stress, frequently related to racing
- Clinically indistinguishable
- Usually present as URT disease
- Suppress cell mediated immunity
- Predispose to infection
 - Bacterial, often from normal flora
 - *Pneumocystis carinii*