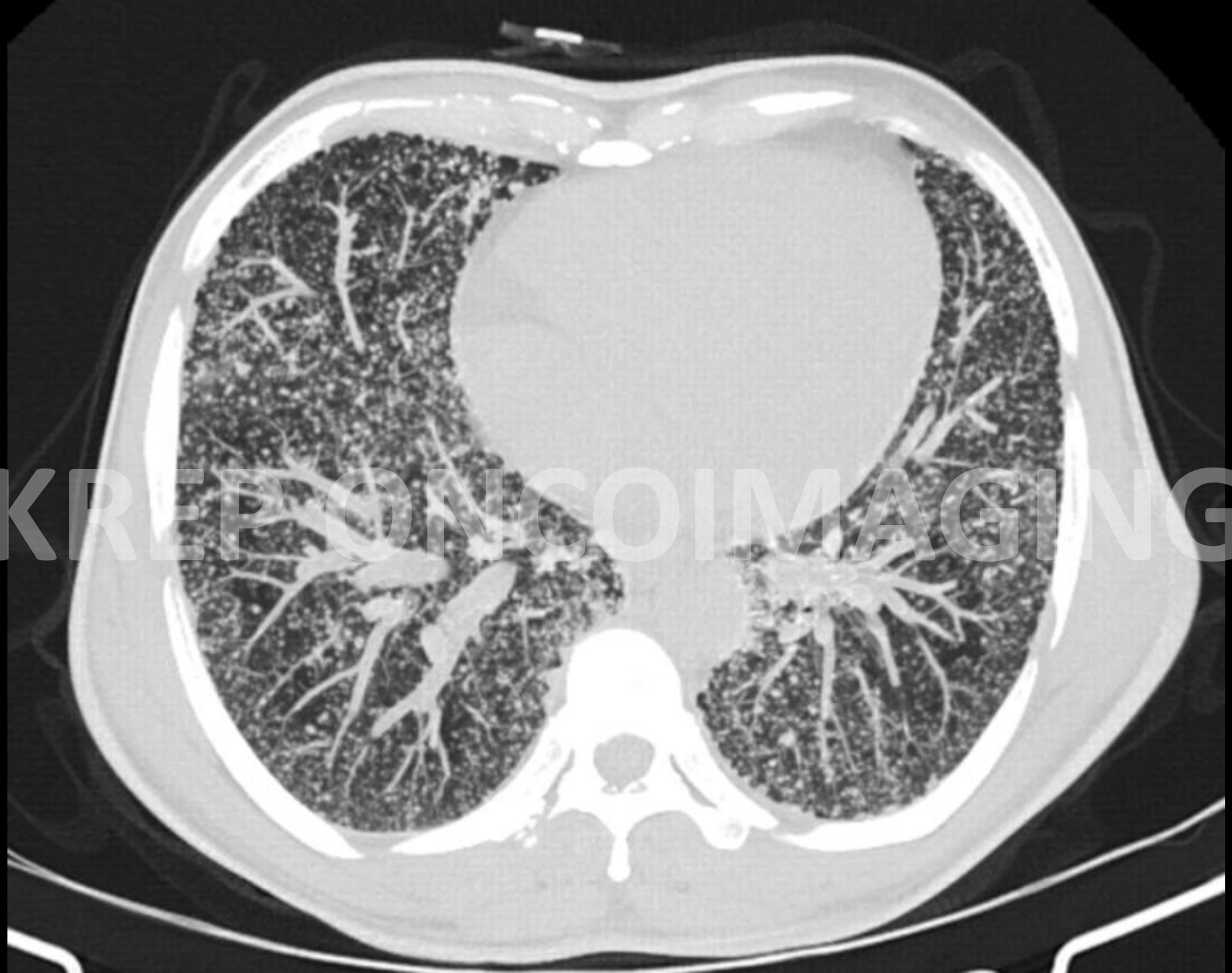
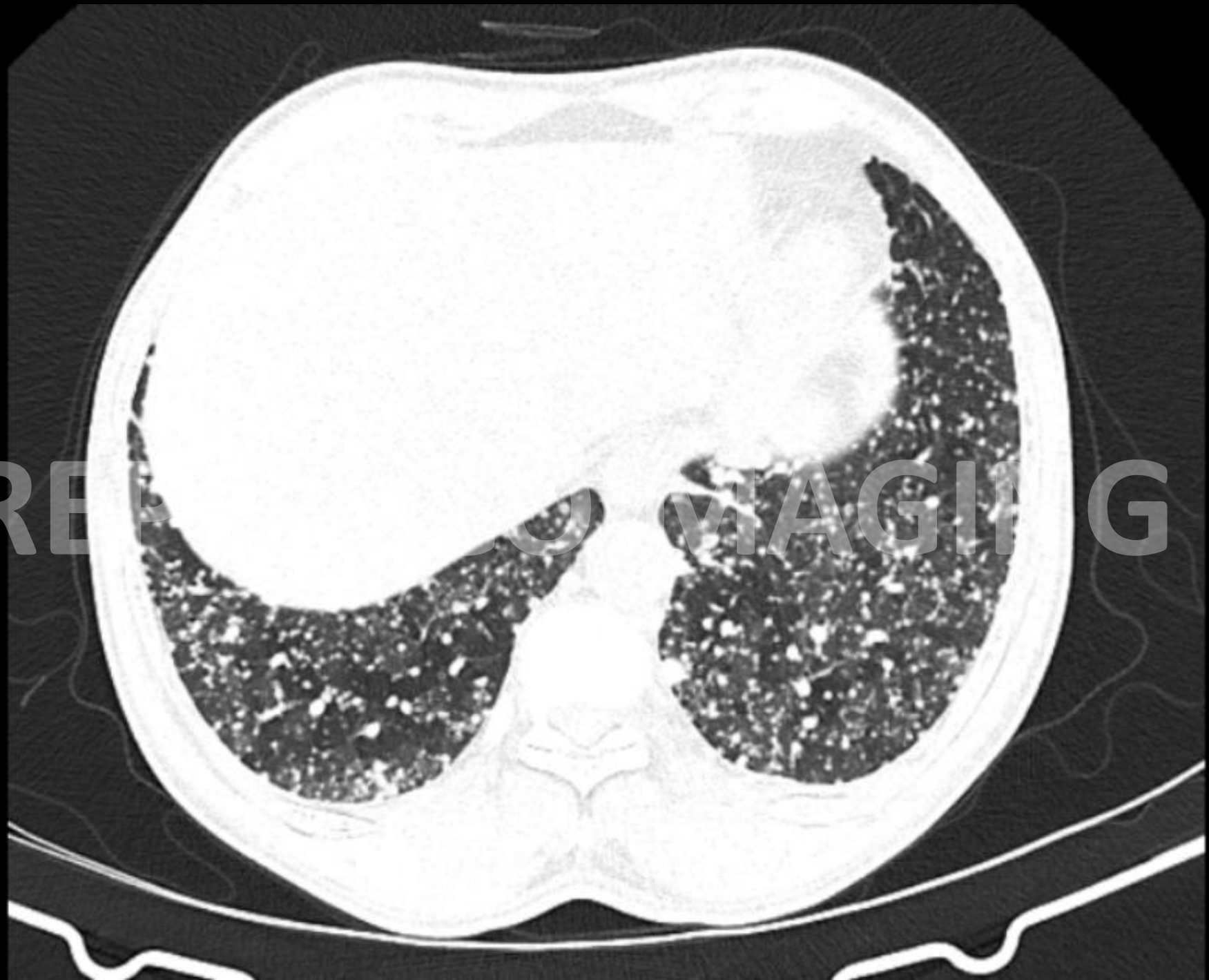
2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM





History of thyroid surgery in recent past

- Innumerable tiny nodules throughout the lung parenchyma ranging from 2-3 mm – miliary pattern.
- There are few nodules which are about 5-6 mm in the lung bases.
- Mosaic attenuation pattern is noted, which can be related to air trapping.

- Based on this morphology and past history of thyroid surgery – miliary metastasis is a possibility. D/d miliary TB, sarcoid
- Less likely TB because nodules mostly do not show any tree-in-bud/ infectious bronchiolitis appearance.
- Sarcoidosis is less likely because almost insignificant interstitial thickening. There is no distortion around the nodules.

Miliary Metastasis

- Refers to **innumerable, discrete, randomly distributed pulmonary nodules (~3 mm)** resulting from **hematogenous dissemination of malignant cells**
- Common Primary Sources:
  - Thyroid carcinoma (especially papillary type), renal cell carcinoma, and choriocarcinoma are classic causes.
  - Others include breast, melanoma, osteosarcoma, gastric adenocarcinoma, and germ-cell tumors through pulmonary capillaries.
- May coexist with pleural effusion or larger metastatic nodules if mixed dissemination routes.
- Occasionally produces ground-glass background opacity (choriocarcinoma → alveolar hemorrhage).
- Extensive disease may cause hypoxemia or respiratory failure due to widespread microvascular obstruction.

Contributors

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