9.09 Lung Biopsies in 2023- The Good, The Bad, and The Ugly

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Background: CT-guided lung biopsy is a well-established method of evaluating suspected lung malignancies. However, it carries significant risk, particularly in individuals with severe emphysema. The Herder model is used to predict malignancy risk, guiding further management, and avoiding unnecessary biopsies. The British Thoracic Society recommends only those with Herder Model risk of below 70% proceed to biopsy. We aim to assess true risks of lung biopsies, impact on management, and local adherence to BTS recommendations.

Methods: Retrospective review of electronic records and imaging of patients undergoing CT-guided lung biopsies at our institution between July 2021-July 2023.

Results: 141 patients underwent biopsies over 2 years. 96% were diagnostic. 67% had a Herder score of >70%. Of these, 91% were confirmed malignant. The rate of periprocedural haemorrhage was 26%. 42% developed pneumothoraces, however only 7% required a chest drain. Mean length of stay was 12.3 days, with complications of prolonged-airleak, pneumonia, and recurrent pneumothoraces observed. There was 1 death post biopsy, with 5 further deaths within 1 month of biopsy.

Conclusions: The Herder Model may be an effective tool to triage patients referred for biopsy. Considering biopsies on a case-by-case basis, rather than as part of routine lung malignancy workup, may limit complications in high-risk individuals.

Keywords: Herder; lung biopsy; pneumothorax