Lung nodule assessment in low-dose CT lung cancer screening

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Thesis statements

Lung nodule assessment in low-dose CT lung cancer screening: validation of detection and volumetric measurement

1. For indeterminate nodules detected in screening, a short term follow-up after initial CT could exclude a considerable number of benign lesions from further work-up. (This thesis)

2. Using a combination of computed-aided detection and nodule size cut-off in lung cancer screening improves the sensitivity of pulmonary nodule detection, and significantly reduces the false positive rate. (This thesis)

3. The NELSON nodule management regimen has very high negative predictive value for lung cancer in CT lung cancer screening. (This thesis)

4. Using different software packages influences nodule management decisions, especially growth categorization based on consecutive examinations. (This thesis)

5. Further standardization of software for nodule volumetry and volume doubling time assessment is needed to optimize nodule management in lung cancer CT screening. (This thesis)

6. CT features of intermediate-sized nodules cannot sufficiently distinguish between malignant nodules and subsequently resolving nodules. (This thesis)

7. Volumetric three-dimensional measurement is more accurate than two-dimensional evaluation of pulmonary nodules.

8. LungCARE is a very accurate software package for measuring the volume of solid lung nodules.

9. As a fruit needs not only sunshine but cold nights and chilling showers to ripen it, so character needs not only joy but trial and difficulty to mellow it. (H. Black)

10. For a researcher, imagination is more important than knowledge.

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