

X線エネルギー-差分法による胸部X線画像の臨床応用について

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1991 Fiscal Year Final Research Report Summary

Single Exposure Energy Subtraction Chest Radiography

Research Project

Project/Area Number

02454284

Research Category

Grant-in-Aid for General Scientific Research (B)

Allocation Type

Single-year Grants

Research Field

Radiation science

Research Institution

Kanazawa University

Principal Investigator

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Keywords

dual energy subtraction / plain chest radiography / soft tissue image / bone image / lung cancer screening / calcified nodule / computed radiography / single exposure

Research Abstract

Postprocessing of image data is one of the unique capabilities of digital radiography that may improve diagnostic performance. Computed radiography (CR) using imaging plates is performed with a dedicated digital radiographic unit. Dual-energy subtraction can also be performed with the system. we studied the impact of digital chest imaging (CR) on the detection of pulmonary nodular shadows in a comparison with conventional chest radiograms. Dual-energy subtraction improved the detection of nodules in 21% cases. Subtraction images markedly improved the detection of nodules hidden under the ribs and calcifications the dual energy subtraction technique appears promising for lung cancer screening.

- [Publications] 上村 良一,高島 力,小林 健,野島 浩司: "肺癌における断層像の効能(2)CR" 断層映像研究会雑誌. 17. 44-49 (1990) ▼
- [Publications] 上村 良一,高島 力,小林 健,野島 浩司,渡辺 洋宇: "肺癌スクリーニングにおけるCRの応用—特に一回撮影エネルギー-サブトラクション法の有用性—" 肺癌. 30. 319-325 (1990) ▼
- [Publications] 高島 力: "一回撮影エネルギー-差分法による胸部X線検査法Fuji computed radiographyを用いて" 医学のあゆみ. 157. 599 (1991) ▼
- [Publications] 高島 力,上村 良一,小林 健,野島 浩司: "X線エネルギー-差分法による胸部X線画像(軟部画像と骨画像)の臨床応用について" INNERVISION. 6. 17-18 (1991) ▼
- [Publications] 上村 良一,高島 力,小林 健,西嶋 博司,高仲 強,生垣 茂: "石川県輪島地区における過去6年間のCRによる肺癌集検—特にエネルギー-サブトラクション法の集検応用について—" 肺癌. 31. 519-526 (1991) ▼
- [Publications] 野島 浩司: "肺野結節影に対する胸部X線写真の診断能に関する基礎的および臨床的研究—フィルム/スクリーン法,Computed radiography,X線エネルギー-差分法軟部画像での比較—" 金沢大学十全医学会雑誌. 100. 1211-1231 (1991) ▼
- [Publications] Kamimura R, Takashima T, Kobayashi T, Nobata K: "Effectiveness of tomography for the diagnosis of lung cancer : 2. Computed tomography." Japanese J of Tomography. 17. 44-49 (1990) ▼
- [Publications] Kamimura R, Takashima T, Kobayashi T, Nobata K, Watanabe Y: "Single exposure energy subtraction chest radiography in the detection of primary lung cancers." Lung Cancer (Jpn). 30. 319-326 (1990) ▼
- [Publications] Takashima T: "Single exposure energy subtraction chest radiography." Igaku no Ayumi. 157. 559 (1990) ▼
- [Publications] Takashima T, Kamimura R, Kobayashi T, Nobata K: "Clinical application of single exposure energy subtraction chest radiography (softtissue image and bone image)." Innervision. 6. 17-18 (1991) ▼
- [Publications] Kimimura R, Takashima T, Kobayashi T, Nishijima H, Takanaka T, Ikegaki S: "Wajima lung cancer screening program using annual chest radiographs with computed radiography (CR)" Lung Cancer (Jpn). 31. 519-526 (1991) ▼
- [Publications] Nobata K: "Basic and clinical studies on the detectability of pulmonary nodules with chest radiography : comparison between conventional film screen radiography, computed radiography and dual-energy subtraction soft tissue image." Journal of the Juzen Medical Society. 100. 1211-1231 (1991) ▼

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