

CT扫描联合肿瘤特异性标志物诊断老年肺癌的价值

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Title: The value of CT scan combined with tumor specific markers in the diagnosis of lung cancer in the elderly

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摘要: 目的: CT扫描联合肿瘤特异性标志物诊断老年肺癌的价值, 为临床诊断及治疗提供参考。方法: 回顾性分析本院于2016年2月至2018年2月收治的194例老年肺癌患者作为观察组, 另选取同期来院参加体检的健康志愿者68例作为对照组。所有老年肺癌患者均采用SIEMENS 64排CT行胸部扫描, 并同时采用电化学发光法测定血清癌胚抗原(CEA)、神经元特异烯醇化酶(NSE)、癌抗原19-9(CA19-9)、细胞角蛋白21-1(CYFRA21-1)等特异性标志物水平。对比两组患者及不同类型肺癌患者的含量变化, 并研究CT联合特异性标志物诊断的灵敏度和特异度。结果: 两组间相比, 观察组患者的血清CEA、NSE、CA19-9及CYFRA21-1含量均高于对照组, 差异有统计学意义($P < 0.05$); 不同类型肺癌患者相比, 周围型肺癌组与中央型肺癌组血清CEA、NSE、CA19-9和CYFRA21-1含量相比差异无统计学意义($P > 0.05$); 就诊断效能而言, 血清肿瘤特异性标志物联合CT扫描诊断的灵敏度94.6%, 特异度96.3%, 均高于单项诊断。结论: 老年肺癌患者血清CEA、NSE、CA19-9及CYFRA21-1含量均升高, 且周围型肺癌与中央型肺癌患者差异不显著, 联合诊断的灵敏度及特异度较高, 值得临床推广。

Abstract: Objective: To study the correlation between CT imaging features and tumor specific markers in elderly patients with lung cancer and the value of combined diagnosis, so as to provide references for clinical diagnosis and treatment. Methods: A retrospective analysis of 194 elderly patients with lung cancer admitted to our hospital from February 2016 to February 2018 as observation group, and 68 healthy volunteers participating in physical examination in the same period as control group. All the elderly patients with lung cancer were treated with SIEMENS dual source CT chest scan, and the electrochemical determination of serum carcinoembryonic antigen chemiluminescence (CEA), neuron specific enolase (NSE), cancer antigen 19-9 (CA19-9), cytokeratin 21-1 (CYFRA21-1). The changes in the content of two groups of patients and patients with different types of lung cancer were compared, and the sensitivity and specificity of the CT combined specific markers were studied. Results: Compared between the two groups, the observation group of patients with serum CEA, NSE, CA19-9 and CYFRA21-1 were higher than the control group, the difference was statistically significant ($P < 0.05$), compared with different types of lung cancer, peripheral lung cancer group and the central lung cancer group serum CEA, NSE, CA19-9 and CYFRA21-1 were no significant difference ($P > 0.05$), diagnostic efficacy, serum tumor specific markers CT scan diagnostic sensitivity 94.6%, specificity 96.3%, are higher than the single diagnosis. Conclusion: The serum levels of CEA, NSE, CA19-9 and CYFRA21-1 in elderly patients with lung cancer are all increased. The difference between peripheral lung cancer and central lung

cancer is not significant. The sensitivity and specificity of combined diagnosis is high, which is worthy of clinical promotion.

参考文献/REFERENCES

- [1] Chang JY, Senan S, Paul MA, et al. Stereotactic ablative radiotherapy versus lobectomy for operable stage I non-small-cell lung cancer: A pooled analysis of two randomised trials [J]. *Lancet Oncology*, 2015, 16(6): 630.
- [2] Wang Q, Wang Q, Wang SF, et al. Oral Chinese herbal medicine as maintenance treatment after chemotherapy for advanced non-small-cell lung cancer: A systematic review and meta-analysis [J]. *Current Oncology*, 2017, 24(4): 269.
- [3] Rizzo S, Petrella F, Buscarino V, et al. CT radiogenomic characterization of EGFR, K-RAS, and ALK mutations in non-small cell lung cancer [J]. *European Radiology*, 2016, 26(1): 32-42.
- [4] Li Yanping, Yin Jun. Clinical analysis of serum tumor markers and high risk factors for lung cancer [J]. *Chinese Journal of Lung Disease: Electronic Version*, 2017, 10(3): 321-324. [李艳萍, 殷俊. 血清肿瘤标志物与肺癌高危因素的临床分析 [J]. *中华肺部疾病杂志: 电子版*, 2017, 10(3): 321-324.]
- [5] Lovinfosse P, Janvier ZL, Coucke P, et al. FDG PET/CT texture analysis for predicting the outcome of lung cancer treated by stereotactic body radiation therapy [J]. *European Journal of Nuclear Medicine & Molecular Imaging*, 2016, 43(8): 1-8.
- [6] Jr PE, Greco E, Gatsonis C, et al. Lung cancer incidence and mortality in national lung screening trial participants who underwent low-dose CT prevalence screening: A retrospective cohort analysis of a randomised, multicentre, diagnostic screening trial [J]. *Lancet Oncology*, 2016, 17(5): 590.
- [7] Nordland, Yu Yingying, Han Wenguang, et al. The central type of lung squamous cell carcinoma and small cell lung cancer CT imaging and serum tumor markers and the relationship between the value of the combined diagnosis [J]. *Chinese CT and MRI Magazine*, 2015, 14(9): 57-61. [努尔兰, 余莹莹, 韩文广, 等. 中央型肺鳞癌、小细胞肺癌CT征象与血清肿瘤标志物的关系及联合诊断的价值 [J]. *中国CT和MRI杂志*, 2015, 14(9): 57-61.]
- [8] Pei Feng, Song Libiao, Song Ying, et al. The value of serum CYFRA21-1, NSE and CEA in the diagnosis of non-small cell lung cancer [J]. *Journal of Hainan Medical University*, 2015, 21(4): 530-533. [裴峰, 宋立彪, 宋瑛, 等. 血清CYFRA21-1、NSE和CEA对非小细胞肺癌辅助诊断的价值分析 [J]. *海南医学院学报*, 2015, 21(4): 530-533.]
- [9] Yang Han, Luo Suxia. The value of six tumor markers in the diagnosis of lung cancer and its clinical application [J]. *Modern Oncology*, 2016, 24(4): 577-581. [杨含, 罗素霞. 六种肿瘤标志物在肺癌诊断中的价值及其临床应用 [J]. *现代肿瘤医学*, 2016, 24(4): 577-581.]
- [10] Zhou Jingting, Xu Jingjing, Huo Jianfeng, et al. The clinical significance of perioperative monitoring of serum CEA, CA19-9, CA125 and CA153 in patients with lung cancer [J]. *Modern Biomedical Progress*, 2016, 16(15): 2896-2898. [周婧婷, 许晶晶, 霍剑锋, 等. 肺癌患者血清CEA, CA19-9, CA125及CA153围手术期动态监测的临床意义 [J]. *现代生物医学进展*, 2016, 16(15): 2896-2898.]
- [11] Liang Huibi, Chen Yinghui, Liu Jianhui. The value of serum CEA, CA19-9, SCC-Ag in lung cancer screening [J]. *Journal of Taishan Medical University*, 2017, 38(6): 669-670. [梁惠碧, 陈映慧, 刘建辉. 血清CEA, CA19-9, SCC-Ag在肺癌筛查的价值 [J]. *泰山医学院学报*, 2017, 38(6): 669-670.]
- [12] Liu Lianhong, Luo Jianxiang, Xu Yuejun, et al. Comparison of serum tumor markers CYFRA21-1, NSE and CEA in different pathological types of lung cancer [J]. *Wuhan University Journal (Medical Edition)*, 2015, 36(4): 533-535. [刘连红, 罗建祥, 徐月君, 等. 不同病理类型肺癌患者血清肿瘤标志物CYFRA21-1、NSE和CEA水平的比较 [J]. *武汉大学学报(医学版)*, 2015, 36(4): 533-535.]
- [13] Pan Qiurong, Xu Qinyan. The clinical value of tumor markers SCCA, TPS, NSE and CYFRA21-1 in lung cancer [J]. *International Journal of Laboratory Medicine*, 2015, 5(24): 3543-3544. [潘秋荣, 徐勤燕. 肿瘤标志物SCCA、TPS、NSE和CYFRA21-1检测在肺癌中的临床价值 [J]. *国际检验医学杂志*, 2015, 5(24): 3543-3544.]
- [14] Xie Baoquan, Zhang Zhiyan, Wang Yuan, et al. Serum CEA, CYFRA21-1 and SCCA detection in evaluating prognosis of patients with lung cancer [J]. *Shandong Medical Journal*, 2017, 57(5): 54-56. [解宝泉, 张志艳, 王袁, 等. 血清CEA、CYFRA21-1及SCCA检测对肺癌患者预后的评估价值 [J]. *山东医药*, 2017, 57(5): 54-56.]
- [15] Du Junhua, Qiao Hongyuan, Yin Yifa. The influence of serum CEA, CA125 and Cyfra21-1 levels on prognosis of patients with advanced non-small cell lung cancer [J]. *Research on Cancer Prevention and Treatment*, 2016, 43(2): 137-140. [杜军华, 乔洪源, 尹宜发. 血清CEA、CA125及Cyfra21-1水平对晚期非小细胞肺癌患者预后的影响 [J]. *肿瘤防治研究*, 2016, 43(2): 137-140.]

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