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Induction of the acidification and apoptosis of human lung cancer cell line through inhibition of Na^+/H^+ exchanger-1 with dimethyl amiloride

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Abstract **Objective**: To study the role of Na^+/H^+ exchanger-1 (NHE-1) in modulation of proliferation/apoptosis of lung cancer cells. **Methods**: The acidification, inhibition and apoptosis of human lung cancer cell line PLA-801D induced by dimethyl amiloride (DMA), one of the NHE-1 inhibitors, was determined with BCECF, a fluorescent probe, living cell count and *in situ* tailing respectively. **Results**: There was obvious acidification of PLA-801D cells incubated with DMA at a volume more than 25 μmol/L for 24 h or 50 μmol/L for 8h and the intracellular pH (pHi) of the tumor cells declined significantly ($P < 0.05$-0.01). Meanwhile, apoptosis of PLA-801D cells was induced and proliferation of them markedly inhibited. **Conclusion**: NHE-1 may play an important role in modulation of proliferation/apoptosis of lung cancer cells and inhibition of the enhanced NHE-1 activity of the tumor cells may be an anticancer strategy.

Key words tumor cell; NHE-1; acidification; apoptosis; dimethyl amiloride

28例老年肺癌临床误诊原因分析

个案与短篇

Analysis of the misdiagnosis of lung cancer in 28 senile patients

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肺癌是当前世界各国常见的恶性肿瘤之一,早发现、早诊断、早治疗对延长患者生存期甚为重要[1,2]。重庆市垫江县人民医院肿瘤科近几年共收治 60岁以上肺癌患者共 94例,其中误诊 28例,现将误诊原因分析如下。

1 临床资料

本组误诊病例共 28例,其中男 20例,女 8例;病变部位左肺 17例,右肺 11例;其中鳞癌 19例,腺癌 7例,小细胞肺瘤 2例。误诊疾病及例数如下: 肺炎 9例,慢性支气管炎 3例,肺结核 6例,结核性胸膜炎 2例,颈淋巴结核 1例,腰椎病 1例,颈椎病 1例,内耳眩晕症 1例,脑梗塞 1例,喉炎 2例,腹痛待诊 1例。

2 讨论

分析本组 28例误诊原因如下:① 病史询问不够: 临床医生对老年肺癌的早期症状,综合表现认识不足,缺乏老年肺癌的概念。对可疑患者询问病史不详细、不细致,未引起足够的临床重视。② 缺乏全面客观分析: 对临床上出现的某些症状,过早的

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Role of microsatellite instability in occurrence of colorectal carcinoma and its prognostic significance

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Abstract **Objective**: To explore the role of microsatellite instability (MSI) in the occurrence of colorectal carcinoma and the relationship between MSI and prognosis of the carcinoma. **Methods**: MSI at 6 loci of D18S34, D17S799, D5S409, TCF-2, P53 and Rb in 56 cases of colorectal carcinoma were detected with RCR-SSLP. **Results**: The total positive rate of MSI was 44.64%. The 3- or 5-year survival rate was higher in the cases with MSI than in those without. **Conclusion**: MSI may be another molecular mechanism of occurrence of colorectal carcinoma. The cases of colorectal carcinoma with MSI have better biological behavior and outcome. Therefore, the detection of MSI might be useful for prediction of the prognosis of colorectal carcinoma.

Key words colorectal carcinoma; microsatellite instability; prognosis

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作出诊断,采取简单的抗感染、口服中药等对症治疗,缺乏全面细致的分析。③ 全面检查不仔细,过分依靠单一辅助检查:本组病例中 X线误诊达 11例。肺结核与肺癌的 X线有很多相似之处,加之老年肺癌并存症状多而掩盖了肺癌的症状造成误诊。④ 临床各科室联系会诊不够:病人在首诊科室就诊,而非专科医生容易将老年肺癌的继发和转移症状或早期引发的邻近器官的反应病症作为主要诊断,忽视其原发疾病。

针对以上分析,我们提出凡有下列情况之一者,都应想到老年肺癌的可能:① 近期发生原因不明的咳嗽、咯血、胸痛、声嘶,按一般抗感染治疗无效果者。② 近期出现颈部、锁骨上窝及腋下淋巴结肿大者。③ 近期突然出现头痛、呕吐、腰痛、关节疼痛的患者,考虑是否以转移灶为首发症状。④ 过去曾有过肺结核、支气管扩张等病史,按抗痨治疗无效者。⑤ 近期出现的一系列肿瘤副症,如:黑棘皮病、皮肌炎、植物神经功能亢进,男性乳房发育等。

关键词　肺肿瘤,误诊
中图法分类号　R734.2

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