非小细胞肺癌骨转移瘤的MRI影像及免疫组化特征

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Title: MR imaging and immunohistochemical features of bone metastases of non-small cell lung cancer

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摘要: 目的：探讨非小细胞肺癌骨转移的MRI影像及免疫组化特征。方法：回顾性分析经病理证实的24例非小细胞肺癌（腺癌22例，鳞癌2例）骨转移患者MRI影像和病理资料。24例均行常规MRI平扫，其中21例行MRI增强检查。24例均行免疫组化检查。结果：骨转移位置股骨、髂骨和肩胛骨多见，多为类圆形（87.5%），呈偏心性生长（66.7%）。多数病灶（83.3%）骨皮质不连续，伴软组织肿块。所有病灶在T1WI上均呈稍低或等信号，T2WI及T2WI脂肪抑制上均呈以高信号为主的混杂信号。T2WI上病灶（91.7%）周围可见水肿或积液样弥漫高信号，增强（95.2%）呈明显不均匀强化。肺腺癌骨转移中甲状腺转录因子1（TTF-1）、胃酶样天冬氨酸蛋白酶（NapsinA）、细胞角蛋白7（CK7）、细胞角蛋白5/6（CK5/6）、p63阳性率分别为72.7%(16/22)、68.2%(15/22)、100.0%(22/22)、18.2%(4/22)、22.7%（5/22)。结论：非小细胞肺癌骨转移瘤多为类圆形，呈偏心性生长，磁共振T2W信号不均，增强为明显不均匀强化，肺腺癌骨转移瘤中TTF-1、NapsinA、CK7多高表达，CK5/6、p63低表达。

Abstract: Objective：To investigate the MR imaging and immunohistochemical features of bone metastasis from non-small cell lung cancer(NSCLC).Methods：MR imaging and immunohistochemical data of 24 patients with bone metastasis from NSCLC(22 adenocarcinomas，2 squamous cell carcinomas) confirmed by pathology were retrospectively analyzed.MRI plain scan was performed in all 24 cases，21 of which underwent MRI enhanced examination.Immunohistochemical examination was performed in 24 cases.Results：Most of the lesions were located in femur，ilium and scapula，which were oval shape（87.5%) with eccentric growth（66.7%）.Most of lesions cortical discontinuities were accompanied by soft tissue masses（83.3%）.All lesions showed slightly hypo-or isointensity on T1WI and heterogeneous intensity on T2WI or T2WI fat suppression sequence.Surrounding the leision showed a diffusive hyperintensity consistent with the signal of edematous tissue or effusion（91.7%).The enhancement was obviously inhomogeneous(95.2%).The positive rate of TTF-1，Napsin A，CK7，CK5/6 and p63 were 72.7%(16/22)，68.2%（15/22)，100.0%(22/22)，18.2%(4/22)，22.7%(5/22) respectively.Conclusion：Bone metastases of NSCLC are oval in shape with eccentric growth，inhomogeneous sigal on T2W，and obvious inhomogeneous enhancement.TTF-1，NapsinA and CK7 are highly expressed in bone metastases from lung adenocarcinoma.CK5/6 and p63 are low expressed in bone metastases from lung adenocarcinoma.

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