

研究简报

两株人肺癌细胞摄取⁹⁹Tc^m-MIBI 的比较

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摘要 比较2株人肺癌细胞对亲肿瘤显像剂 ⁹⁹Tc^m MIBI的不同摄取特征。细胞摄取 ⁹⁹Tc^m-MIBI的动力学行为显示⁹⁹Tc^m-MIBI在小细胞肺癌(H446)中的摄取显著高于肺腺癌(SPC-1), H446细胞对⁹⁹Tc^m-MIBI的摄取在120 min内逐渐升高至最大峰值, 然后缓慢下降; 此摄取可被未标记的MIBI所抑制; H446细胞对⁹⁹Tc^m-MIBI的摄取与细胞数量呈正相关而与放射性浓度呈负相关; SPC-1细胞对 ⁹⁹Tc^m-MIBI的摄取处于低水平状态, 无明显峰值。结果显示, 不同的肺癌细胞具有对⁹⁹Tc^m-MIBI的不同摄取特性, 这与临床不同类型肺癌患者的⁹⁹Tc^m-MIBI显像结果不同相符。

关键词 [人肺癌细胞](#) [⁹⁹Tc^m-MIBI](#) [细胞摄取](#)

分类号

Comparison of the Uptake of ⁹⁹Tc^m-MIBI in Two Lung Cancer Cell Lines

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Abstract The uptake characters of ⁹⁹Tc^m-MIBI in two lung cancer cell lines (human small cell lung cancer H446 cells and human lung adenocarcinoma SPC-1 cells) were investigated. The uptake kinetic data show that H446 cells absorb significantly higher level of ⁹⁹Tc^m-MIBI comparing with SPC-1 cells. The uptake percentage of ⁹⁹Tc^m-MIBI in H446 cells increases time-dependently and reaches its peak value at about 120 min, and then drops slowly. This uptake in H446 cells is positively correlated with the number of cells while negatively with the concentration of radiolabelled ⁹⁹Tc^m-MIBI. Furthermore, it is markedly inhibited by excessive unlabelled MIBI. However, the uptake of ⁹⁹Tc^m-MIBI in SPC-1 cells maintains at low levels without a visible peak during the experiment time. These results suggest that the uptake characters of ⁹⁹Tc^m-MIBI are different in two lung cancer cell lines, which is accordant with the clinical facts that patients with lung cancers displayed diverse ⁹⁹Tc^m-MIBI imaging patterns.

Key words [human](#) [lung](#) [cancer](#) [cell](#) [lines](#) - [⁹⁹Tc^m-MIBI](#) - [cellular](#) [uptake](#)

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