

论文

用固相萃取-核磁共振谱法研究大鼠尿中溴莫普林的代谢产物

司伊康;徐瑞明;孔漫;贺文义;张守仁

中国医学科学院中国协和医科大学药物研究所,北京100050

摘要:

为使核磁共振谱技术应用于药物代谢产物的研究,用固相萃取-核磁共振谱法对药物溴莫普林体内代谢产物进行了解析。用固相萃取法将大鼠尿液中的内源性物质与药物代谢产物分离后,经梯度洗脱和<sup>1</sup>H核磁共振谱测定,建立了对药物代谢产物混合物图谱的解析方法。结果成功地鉴定出5种主要的代谢产物,代谢产物的类型与文献报道相同。提示本测定方法有省时、省力的优点,并避免分离、提纯代谢产物时引起结构改变。

关键词: 核磁共振谱 溴莫普林

SOLID PHASE EXTRACTION COUPLED WITH HIGH-FIELD PROTON NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY: APPLICATION TO THE ANALYSIS OF BRODIMOPRIM METABOLITES IN RAT URINE

Si Yikang; Xu Ruiming; Kong Man; He Wenyi and Zhang Shouren

Abstract:

The use of coupled solid-phase extraction and high-field proton nuclear magnetic resonance spectroscopy (SPE<sup>1</sup>HNMR) for the detection and identification of the urinary metabolites of brodimoprim is described. Urine was obtained from Wistar rats following a dose of 200 mg·kg<sup>-1</sup> of brodimoprim. Analysis was performed on partially purified extracts obtained by solid-phase extraction onto C-18 bonded silica gel. As each spectrum was often given by a mixture of more than two kinds of metabolites, stepwise identification of the individual metabolites was achieved by sorting out signal sets having invariant proportionality. Five kinds of metabolites of the drug were found by the analysis.

Keywords: Brodimoprim Nuclear magnetic resonance spectroscopy

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