

论文

人尿中脱氢睾酮代谢物的GC/MS分析

张霁;刘春胜;周同惠

中国医学科学院药物研究所分析室,北京100050

摘要:

本文用GC/MS方法,对人尿中脱氢睾酮(boldenone)代谢物进行了研究。志愿者口服20 mg脱氢睾酮后,收集阳性尿。尿样经过包括XAD-2树脂柱吸附、酶水解、有机相萃取及三甲基硅烷衍生化反应的预处理后,用毛细管气相色谱与质谱检测器联用进行分析,鉴定了脱氢睾酮的几个主要代谢物和它们的代谢模式;总结了兴奋剂检测中具有意义的代谢物及其碎片离子;对收集的阳性尿中脱氢睾酮浓度进行测定;对预处理方法的回收率进行了研究。

关键词: 脱氢睾酮 尿样分析 气相色谱质谱法

GAS CHROMATOGRAPHIC/MASS SPECTROMETRIC ANALYSIS OF BOLDENONE URINARY METABOLITES IN MAN

J Zhang ;CS Liu and TH Zhou

Abstract:

The metabolism of boldenone (17β-hydroxy-1,4-androsterm-3-one) in man has been investigated by gas chromatography/mass spectrometry. After oral administration of a 20 mg dose to man, six metabolites were detected in the conjugated fraction of the urinary samples. Boldenone, the major compound excreted in urine, was detected within 34 h after administration. In addition, several metabolites, resulting from the hydroxylation of boldenone and the reduction of the unsaturated carbon bonds of boldenone, were detected in the urine samples varying from 9 to 83 h. Extraction and fractionation of these metabolites were achieved by using XAD-2 column and gas chromatography. The recovery of the whole procedure was studied. Furthermore, the mass spectra of the metabolites are presented and major fragment pathways are discussed.

Keywords: Urine analysis, GC/MS Boldenone

收稿日期 1990-03-03 修回日期 网络版发布日期

DOI:

基金项目:

通讯作者:

作者简介:

参考文献:

本刊中的类似文章

文章评论 (请注意:本站实行文责自负, 请不要发表与学术无关的内容!评论内容不代表本站观点.)

扩展功能

本文信息

- Supporting info
- PDF (265KB)
- [HTML全文]
- 参考文献

服务与反馈

- 把本文推荐给朋友
- 加入我的书架
- 加入引用管理器
- 引用本文
- Email Alert
- 文章反馈
- 浏览反馈信息

本文关键词相关文章

- 脱氢睾酮
- 尿样分析
- 气相色谱质谱法

本文作者相关文章

- 张霁
- 刘春胜
- 周同惠

PubMed

- Article by
- Article by
- Article by

反馈人	<input type="text"/>	邮箱地址	<input type="text"/>
反馈标	<input type="text"/>	验证码	<input type="text"/> 2406

