



 **Current Issue**


 **Browse Issues**

 **Search**



 **About this Journal**

 **Instruction to Authors**

 **Online Submission**

 **Subscription**

 **Contact Us**



 **RSS Feed**

Acta Medica Iranica

2009;47(4) : 18-22

INVESTIGATION OF OESTROGEN AND PROGESTERONE INTERFERENCE WITH MORPHINE IDENTIFICATION IN HOURS URINE OF RATS BY TLC TECHNIQUE

O. SABZEVARI , KH. EBRAHTMI. M.R. VAEZ-MAHDAVI

Abstract:

Various screening techniques are employed by laboratories for rapid detection of morphine in urine including TLC, EIA (EMIT) and etc. There have been reports of hormonal drug-induced interference with morphine clearance from the body. The aim of this study was to evaluate the influence of oestrogen and progesterone on morphine detection in 24hr urine samples of rats by TLC. Male Wistar albino rats were housed in metabolic cages and were administered intraperitoneally oestradiol valerate or progesterone each at 10 & 20 mg/kg and morphine at 25 mg/kg once a day for 8 days. Urine samples were collected every 24 hr, rapidly checked by spot tests and assessed by TLC using Iodoplatinate and/or Dragendorff reagents. Results show that neither oestradiol valerate nor progesterone interfere with morphine detection (administered before or after) in 24hr urine samples. These findings could lead to the conclusion that these drugs do not interfere with morphine detection in urine by TLC but do not exclude the possibility of interference with enzyme immunoassay techniques (EMIT). Although EMIT is a sensitive technique but its specificity can be influenced by other drugs (i.e. steroid hormones). Therefore, the interference of oestradiol and progesterone with morphine detection by EMIT remains to be further investigated. However, other factors including higher doses of oestradiol valerate, progesterone or morphine, shortening of sampling time as well as application of an alternative sample preparation technique to increase the detection sensitivity, could also be important in this regard.

Keywords:

[Oestrogen](#) . [Interference](#) . [TLC](#)

TUMS ID: 4326

Full Text HTML  Full Text PDF  578 kB

top ▲

[Home](#) - [About](#) - [Contact Us](#)

TUMS E. Journals 2004-2009
Central Library & Documents Center
Tehran University of Medical Sciences

Best view with Internet Explorer 6 or Later at 1024*768 Resolutions