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Micellar Liquid Chromatographic Method for the Simultaneous Determination of Norfloxacin and Tinidazole in Pharmaceutical Dosage Forms and Human Plasma

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SUMMARY. **A micellar liquid chromatographic method was developed for the simultaneous analysis of a binary mixture of norfloxacin and tinidazole (NOR and TIN) in dosage forms and human plasma. The analysis was carried out using a Waters Symmetry® C18 column (250 mm x 4.6 mm i.d., 5 μm particle size). The running mobile phase consisting of 0.15 M sodium dodecyl sulphate (SDS), 0.3 % triethylamine (TEA), 5 % n-propanol, the pH was adjusted to 4 by addition of 0.02 M orthophosphoric acid pumped at a flow rate 1.0 mL/min with UV at 275 nm. Calibration curves were linear over the range 1–28 and 1.5–42 μg/mL for NOR and TIN, respectively. The quantification limits were 0.7 and 1.0 μg /mL for NOR and TIN respectively. The proposed method was successfully applied for the simultaneous determination of NOR and TIN in human plasma without prior precipitation of protein. The mean percentage recoveries of bioavailability test in human plasma (n = 3) were 90.31 ± 4.22 and 90.05 ± 1.3 for NOR and TIN, respectively.**

Tinidazole (TIN)

KEY WORDS: Human plasma, Micellar liquid chromatography, Norfloxacin, Pharmaceutical tablets, Tinidazole.

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