Journal of Chromatography, 306 (1984) 446—447
Biomedical Applications
Elsevier Science Publishers B.V., Amsterdam — Printed in The Netherlands

CHROMBIO. 1985

Letter to the Editor

Liquid chromatographic determination of mitomycin C in plasma and urine

Sir,

Den Hartigh et al. state [1] that the main drawback of our method [2] for the determination of mitomycin C in plasma and urine samples compared to other published methods [3, 4] is the varying recovery obtained at different concentration levels using a Sep-Pak C_{18} extraction procedure. However, in neither ref. 3 nor ref. 4 are the recovery and precision at different concentration levels presented. The conclusion of a concentration-independent recovery in refs. 3 and 4 is based on the fact that linear regression analysis of the calibration curves gives correlation coefficients in the order 0.999. The difficulties in interpreting the results from a linear regression analysis with a wide range of the variables (ref. 3: 1—1500 ng/ml; ref. 4: 5—1000 ng/ml) have been discussed in refs. 5 and 6. For example, linear regression analysis of the data in ref. 2 gives r values of 1.0000 and 0.9997 for plasma and urine samples, respectively. In summary, no conclusion regarding the recovery and precision of mitomycin C at different concentration levels can be drawn from the data presented in refs. 3 and 4.

The stability of mitomycin C was studied at pH < 7. The aim of the study was to find suitable conditions for the chromatographic procedure (the chromatographic support materials available are only stable at pH values below 7).

We are well aware of the problems associated with the handling of biological samples containing low concentrations of cytostatic drugs (see ref. 7). This has not been discussed in ref. 2, or in the paper by Den Hartigh et al. [3].

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(Received October 24th, 1983)