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Letter to the Editor

HPLC Determination of Rubidazone and Metabolites

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With reference to the recent report by Baurain et al. (1979), we wish to draw attention to the following points. The HPLC method described by these authors is probably fast and sensitive, but the separation of the two eluted peaks of rubidazone (RBZ) and daunorubicin (DNR) is not enough to allow a sufficient accuracy at low levels.

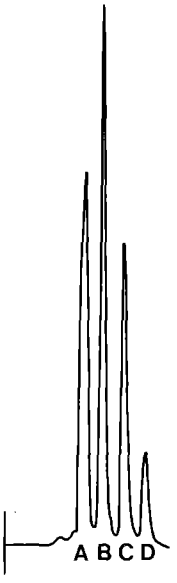

Fig. 1. Typical chromatogram of a mixture of daunorubicin (**A**), rubidazone (**B**), the internal standard (**C**) and daunorubicinol (**D**)

Three years ago, we published (Hulhoven and Desager, 1976) a sensitive and accurate method for the plasma determination of DNR and its metabolite, daunorubicinol (DNR-ol). Actually we use a slightly different column: ZORBAX-SIL ∅ 4.6 mm, length 25 cm. The elution pressure is therefore lower (750 psi) and the elution mixture slightly modified: methylene chloride, methanol, water, 25% ammonia (90 : 10 : 1.1 : 0.135 v/v). With this procedure the following chromatogram is obtained (0.5–2 μg/ml for each compound).

The retention times are 3.40 min for DNR (A), 4.15 min for RBZ (B), 5 min for adriamycin (C: internal standard) and 6 min for DNR-ol (D) (Fig. 1). The peaks are well separated and allow a good measurement of the three analyzed compounds.

References

Baurain, R., Deprez-Decampeneere, D., Trouet, A.: Distribution and metabolism of rubidazone and daunorubicin in mice. A comparative study. Cancer Chemother. Pharmacol. **2**, 37 (1979)

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