TABLE 1. EFFECT OF INHIBITOR CONCENTRATION ON RADIOIMMUNOASSAY OF PLASMA RENIN ACTIVITY

Amount of Dimercaprol (μl)	ng angiotensin I/ml/hr									
6	1.15	0.42	0.83	1.10	0.95	0.78	0.17	0.95	0.84	0.16
2	0.49	0.14	0.33	0.34	0.43	0.31	0.10	0.56	0.46	0.11

Assay ratio 6 μl : 2 μl (±s.d.) = 2.24 ± 0.58

kits and these are shown in Table 1. All samples were measured in triplicate, and the repeatability was ±2%.

The most probable explanation for the difference is that the amount of Dimercaprol recommended in the earlier SORIN kit did not completely inhibit the enzymic degradation of angiotension I during the plasma incubation at 37°C. The same problem could be inherent in the Schwarz-Mann kit if their recommended amount of Dimercaprol is used. This observation means that earlier reported results based on this assay require critical reappraisal.

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REFERENCE

1. CHERVU LR, LORY M, LIANG T, et al: Determination of plasma renin activity by radioimmunoassay: comparison of results from two commercial kits with bioassay. *J Nucl Med* 13: 806–810, 1972

THE AUTHORS' REPLY

We have read with interest the letter from Hutchinson, et al on the effect of inhibitor concentration on radioimmunoassay of plasma renin activity. We have no experience with the SORIN kit and as such we are not in a position to comment on the large observed variation of renin activity with the change in Dimercaprol volume employed. Our initial experiments using the Squibb kit have been carried out with varying amounts of Dimercaprol (2 μl–10 μl), and these gave renin activity values which agreed closely. The wide variation indicated in the above communication was not noted with this kit. We have finally chosen the volume of 10 μl of Dimercaprol for accuracy in pipetting using both kits. Using the procedure outlined in our study we obtain highly reproducible renin activity values. We certainly agree that any commercial kit must be carefully tested for quality control and reproducibility before offering the results for general clinical use.

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ON FAILURE TO IMPROVE OBSERVER PERFORMANCE WITH SCAN SMOOTHING: A REBUTTAL

A recent paper by Kuhl, et al (*1*) reported the authors' study of detection performance by human observers viewing unprocessed and smoothed scan data. Although we agree with the authors' statement that human observer performance must be the real test of digital scan image manipulation, we question the applicability of their method of data analysis to their experimental situation and suggest that the negative conclusion reached may be due, at least in part, to this analysis rather than to any failure of scan smoothing in improving lesion detectability.

In this note we discuss the underlying assumptions implicit in the method of data analysis used by Kuhl, et al, and argue that these assumptions are not satisfied, even approximately, in the authors' experimental situation. We also propose an alternative, although related, method of analysis more appropriate to the authors' experimental situation and show that, on this basis of this analysis, the authors' data indeed suggest increased lesion detectability after some scan smoothing—a conclusion opposite to that reached by Kuhl, et al.

The authors' Fig. 3 shows that a result of smoothing the scans was an increase in true-positive detec-