

activity that would be obtained if the  $^{125}\text{I}$ -Hippuran were injected as a single bolus into the renal artery. From this curve information may be obtained regarding the spread of tubular transit times for  $^{125}\text{I}$ -Hippuran. Prior to investigation all patients were given 500 ml of water to obtain a urine rate flow of more than 1 ml/min. Four hundred microcuries of  $^{125}\text{I}$ -Hippuran were administered by intravenous injection and data were recorded at 15-sec intervals for 25 min. Serial Polaroid photographs were also taken. Renal and cardiac regions were selected by light pen from data playback of the integrated digital image and activity in these regions was plotted against time. The region between the kidneys was chosen for nonrenal activity subtraction. The renal transfer function was calculated by computer. The gradient of the renogram was calculated manually for each point on the curve and the data were transferred to the computer. The computer then calculated values for the constants in the equation using the method of least squares. In order to determine the effect of renal plasma flow a 5-ml blood sample was taken about 15 min after injection. From the deconvoluted renogram the ratio of the height of the plateau

of the right and left renal transfer functions was set equal to the ratio of the corresponding renal plasma flows of each kidney. Fifty-eight patients were selected for comparison of renal function as judged by tubular handling of Hippuran and compared with that of 19 normal kidneys. The patients were divided into groups: pyelonephritis (17 patients), hypertension (15 patients), hydronephrosis (18 patients), and chronic renal failure (8 patients). Patients with hydronephrosis or renal failure showed considerable increase in maximum transit times. Subtraction of activity within the renal pelvis was attempted in all cases of hydronephrosis and in other cases where significant pelvic activity was observed. In seven patients the renal transit time returned to normal following subtraction. The authors felt that the combination of regional renography with a simple and rapid analysis of the renogram into a concise quantitative form would show minor impairments in function that might not be evident from qualitative inspection of the original renogram curves. It should also aid in comparison of followup investigations designed to test the effectiveness of surgery or other therapy.

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### ERRATUM

Due to a printer's error, the structural reaction formula in Table 2 of the article "Relationship of Chemical Structure and Solvent to In Vivo Scintigraphic Distribution Patterns of  $^{11}\text{C}$  Compounds. II.  $^{11}\text{C}$  Amino-nitriles" by Winstead et al (*J Nucl Med* 16: 1049-1057, 1975) was published in a very incomplete form. The correct formula to describe the preparation of  $^{11}\text{C}$ -labeled  $\alpha$ -N-arylaminoaryl acetonitriles is shown below:

