ERRATUM

CONTRIBUTION OF LEG AND SPLANCHNIC FREE FATTY ACID (FFA) KINETICS TO POSTABSORPTIVE FFA FLUX IN MEN AND WOMEN, By Michael D. Jenson and C. Michael Johnson (45:662-666, May 1996)

The [9,10 ^{3}H]palmitate used in these studies was obtained from American Radiochemicals Inc, (St Louis, MO), and the [9,10 ^{3}H]oleate was obtained from NEN Research Products (North Billerica, MA). Reanalysis of the [^{3}H]palmitate tracer by HPLC revealed that it was only 60% as pure as the [^{3}H]oleate tracer. FFA flux was, therefore, recalculated for the [^{3}H]palmitate studies (eight men and eight women). Recalculation was not required for studies in which [^{3}H]oleate was used. This correction does not affect regional FFA uptake or release values, as the tracer infusion rate is not used in this calculation.

RESULTS

Steady-state postabsorptive FFA flux was 420 ± 119 μmol/min (range, 207 to 676) in women and 430 ± 122 μmol/min (range, 219 to 678) in men.

Release of FFA from adipose tissue of one leg accounted for 15% ± 6% of total FFa flux in women and 12% ± 4% of FFA flux in men (P = NS men *v* women).

The Pearson correlation coefficients between leg FFA release and systemic FFA flux were 0.62 ($P < .001$) in men and 0.33 (P = NS) in women. The relationship between leg FFA release and systemic FFA flux were not significantly different between men and women, as assessed by multiple linear regression analysis. The correlation between leg FFA release and systemic FFA flux for men and women combined was statistically significant (Fig 1, bottom).

Basal splanchnic FFA release accounted for 15% ± 8% of systemic FFA flux in women and 16% ± 7% of systemic FFA flux in men. The Pearson correlation coefficients between splanchnic FFA release and systemic FFA flux were 0.28 (P = NS) in women and 0.62 (P = .002) in men.

As assessed by multiple linear regression analysis, there was no significant effect of gender on the relationship between splanchnic FFA release and systemic FFA flux, although there was a significant correlation (Fig 1, top) between the two variables for the combined groups.

Upper-body adipose tissue FFA release was 238 ± 119 μmol/min (29.2 ± 13.7 μmol · kg upper-body fat^{-1}/min^{-1}) in women and 258 ± 84 μmol/min (38.6 ± 18.0 μmol · kg upper-body fat^{-1} · min^{-1}) in men. Upper-body adipose tissue FFA release was greater than lower-body adipose tissue release in both women (P = .001) and men ($P < .001$).

Leg FFA uptake accounted for 10% ± 5% of systemic FFA flux in women and 9% ± 3% of splanchnic FFA flux in men. Splanchnic FFA uptake in women and men accounted for 40% ± 14% and 42% ± 18% of systemic FFA flux, respectively. The correlation coefficients between leg and splanchnic FFA uptake and systemic FFA flux were 0.17 and 0.14 (both P = NS), respectively, in women and 0.61 and 0.52 (both $P < .05$), respectively, in men.

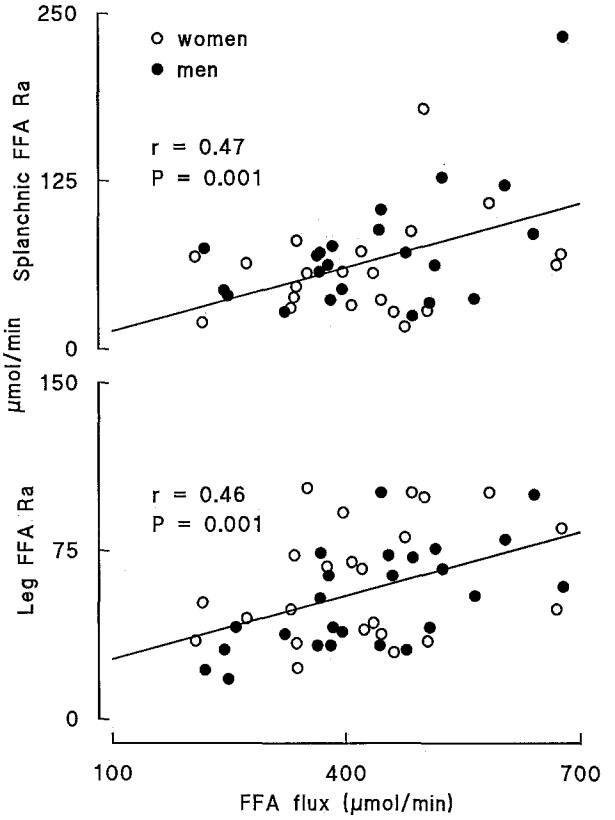

Fig 1. Leg and splanchnic FFA release (Ra) rates are plotted *v* systemic FFA flux in men and women. Pearson correlation coefficients are shown.

DISCUSSION

Although changes in systemic FFA flux were observed when correction for the isotopic impurity of [^{3}H]palmitate was accounted for, there were no changes in the overall conclusions of our studies. Substantial errors can occur if impure lots of FFA tracers are used. The problems are compounded if methods that measure SA in a specific FFA (HPLC) are used. Investigators using fatty acid radiotracers are encouraged to test the purity of the tracers themselves using HPLC.