

Triazolam disposition

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Triazolam (T) is a new, potent hypnotic with a short duration of action in man. After an 0.88 mg oral dose of $T^{14}C$ in six male subjects, mean recovery of ^{14}C radioactivity was 85% in urine and 8% in feces. The major urinary metabolites were α -hydroxytriazolam (α -HT) and 4-hydroxytriazolam (4-HT) accounting for 69% and 11% of the urinary ^{14}C , and these were mostly in conjugated form. α , 4-Dihydroxytriazolam and three dichlorotriazolylbenzophenone analogs were minor metabolites. At least 85% of the dose was rapidly absorbed: mean absorption half-life ($t_{1/2 A}$) was 2.8 min. After reaching a mean peak plasma level (C_{max}) of 8.8 ng/ml at mean time (t_{max}) of 1.3 hr, plasma T decreased rapidly with a mean elimination half-life ($t_{1/2 F}$) of 2.3 hr. The remainder of the plasma ^{14}C consisted predominantly of glucuronides of α -HT and 4-HT. Mean plasma parameters for these metabolites were as follows: α -HT-glucuronide, $t_{1/2 E} = 3.9$ hr, $t_{max} = 1.3$ hr, $C_{max} = 6.1$ ng/ml; 4-HT-glucuronide, $t_{1/2 E} = 3.8$ hr, $t_{max} = 2.5$ hr, $C_{max} = 6.1$ ng/ml. Nonconjugated α -HT and 4-HT were present in plasma but in insufficient amounts for kinetic analysis. The results were consistent with the short duration of action.