

Plasma clearance and tissue distribution of labelled chicken and human IGF-I and IGF-II in the chicken

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The metabolic clearance of chicken IGF-I (cIGF-I), cIGF-II, human IGF-I (hIGF-I), and hIGF-II was examined in the chicken using ¹²⁵I-labelled growth factors. Superose-12 chromatography of plasma collected at 7.5 min post-infusion revealed peaks of radioactivity corresponding to 150 and 43 kDa and unbound tracer. Statistical analysis of trichloroacetic acid (TCA)-precipitable radioactivity in sequential plasma samples as well as following chromatography of the same samples revealed that clearance of the radiolabelled peptides followed an apparent triphasic pattern. The close similarity of the individual chromatographically defined pools in their clearance rate compared with the three components described by TCA precipitation strongly suggested their identity. Both free ¹²⁵I-labelled cIGF-II (3.11 min) and hIGF-II (3.01 min) were cleared at a greater rate than their IGF-I counterparts. Unbound hIGF-I was cleared at a greater rate than cIGF-I (4.45 vs 5.66 min respectively). A similar patt