

论著

醋酸艾塞那肽在大鼠体内的代谢分布

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摘要 目的 研究醋酸艾塞那肽(exendin-4)在大鼠体内的组织分布。方法 Iodo-GenTM法制备 [¹²⁵I] exendin-4, 大鼠皮下注射 [¹²⁵I] exendin-4后, 分别测定血浆或组织中的总放射性含量和酸沉淀放射性含量。结果 [¹²⁵I] exendin-4的酸沉淀放射性分布从高到低的顺序为肾脏>肺>膀胱>胰腺>肠>血浆>肾上腺>空肠>淋巴结>肝>脾>心脏>骨髓>胸腺>睾丸>脑>肌肉>脂肪。结论 [¹²⁵I] exendin-4的分布快速而广泛, 其中以肾脏中最高, 而在脑组织只发现微量的 [¹²⁵I] exendin-4。

关键词 [醋酸艾塞那肽](#) [组织分布](#) [药代动力学](#)

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Tissue distribution of exendin-4 in rats

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Abstract

AIM To investigate the tissue distribution of exendin-4 after administration in healthy rats. **METHODS** Exendin-4 was radioiodinated by the Iodo-GenTM method. Tissue distribution of [¹²⁵I] exendin-4 was investigated after sc administration of [¹²⁵I] exendin-4 at 3 μg·kg⁻¹ in rats. Both total radioactivity and trichloroacetic acid (TCA) precipitated radioactivity were used to calculate the levels of [¹²⁵I] exendin-4 in rats plasma and tissue samples after sc administration. **RESULTS** The tissue distribution of [¹²⁵I]exendin-4 after sc injection showed substantial disposition in kidneys, lungs, bladder and pancreas. The rank order of normalized tissue distribution was kidneys>lungs>bladder>pancreas>intestine>plasma>adrenals>jejunum>lymph>liver>spleen>heart>marrow>thymus>testicles>brain>muscle>adipose. **CONCLUSION** [¹²⁵I] Exendin-4 underwent a rapid and wide distribution in the tissues throughout the whole body within the time course examined. TCA precipitated radioactivity in kidneys was the highest, however, only trace amounts of [¹²⁵I] exendin-4 was detected in the brain.

Key words [exendin-4](#) [tissue distribution](#) [pharmacokinetics](#)

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