

***rdw* rat , Congenital Hypothyroid Mutant as a Model of Cretinism.**

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It has been considered that the examples which cause adverse effect for the reproductive activity and developmental disorder by endocrine disturbance chemicals lowering thyroid hormone in human and experimental animals. The hypothyroidism from neonatal stage is known as a cretinism and characterized for the retardation of remarkable body growth and of mental development in human. In our laboratory, *rdw* rats with the congenital hypothyroid mutant are being produced and bred. It is possible that the mutant is could be supplied as a model of cretinism. The growth and endocrinological features of *rdw* rat were characterized by partially comparing with that of the rat with transient hypothyroidism with 6-propyl 2-thiouracil which was previously reported by Cooke et al.(1991-1994). In *rdw* rat, body growth was remarkably decreased, but testicular weight of the mutant at later developmental stage was larger than that of normal control, resembling hypothyroid boy in a macroorchidism as previously reported by Jannini et al. (1995). Serum thyroxine level of *rdw* rat was remarkably lower than that of control and thyroid gland was atrophied without effect to parathyroid gland. In conclusion, *rdw* rat is a useful model of congenital hypothyroidism like cretinism in human.