

THE EFFECT OF A SINGLE DOSE OF MELATONIN ON T₃, T₄ PLASMA LEVELS IN RATS

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A single dose of melatonin effect on T₃, T₄ plasma levels was investigated in pinealectomized and sham-pinealectomized rats at selected times of day (9.00 a.m., 5.00 p.m., 9.00 p.m., 5.00 a.m.). T₃, T₄ were RIA-measured at 30th, 60th, 90th and 120th min after 100 µg melatonin injection. A statistical increase in T₃, T₄ levels at 9.00 p.m. in sham-pinealectomized rats was observed. Pinealectomy increased T₃, T₄ levels at 5.00 a.m. Melatonin injection reduced T₃, T₄ concentration to the basal range. The results suggest that as pineal as exogenous melatonin single injection suppresses T₃, T₄ plasma levels.