

# ECT受容体イメージング解析法のための精神神経症 患モデル動物を用いた基礎実験

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# 1992 Fiscal Year Final Research Report Summary

## A Fundamental study on analysis of ECT imaging using model animals of psycho-neuro disorders

Research Project

### Project/Area Number

03670542

### Research Category

Grant-in-Aid for General Scientific Research (C)

### Allocation Type

Single-year Grants

### Research Field

Radiation science

### Research Institution

Kanazawa University

### Principal Investigator

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### Project Period (FY)

1991 - 1992

### Keywords

Emission CT / receptor / autoradiography / animal model / schizophrenia / antipsychotic drugs / radiopharmaceuticals

### Research Abstract

The effects of acute intravenous or chronic subcutaneous haloperidol (HPD) administration on the local cerebral blood flow (LCBF) in 41 regions of the rat brain were studied by means of the quantitative autoradiographic N-isopropyl-p- [125-I] iodoamphetamine technique. After acute HPD administrations, the LCBFs decreased in the anterior cingulate cortex, primary motor cortex and primary auditory cortex, and increased the n. habenula. Chronic HPD administration reduced LCBF in the substantia nigra, and increased LCBFs in the n.caudatus-putamen, n.accumbens and n.habenula. No change in LCBF

was observed in any cortical region after chronic HPD administratin.

An in vivo receptor binding techniques was applied to evaluate the affinities of and clozapine, risperidone, RMI-81582 and haloperidol for dopamine D1, D2, 5- HT2 receptors in the rat brain with [3-H] -SCH23390, [3-H] -YM-09151-2 and [3-H] -Ketanserine as selective ligands. Time course study of receptor occupancy at 25 to 250 min after i ...▼ More

## Research Products (6 results)

All Other

All Publications (6 results)

[Publications] Shiba K.: "Synthesis of technetium-99m labeled diaminodithiol for bifunctionl chelating agents" Int. J. Radiat. Appl. Instrum. part A.42. 1159-1164 (1991) ▼

[Publications] Shiba K.: "Synthesis and characterization of Tc-99m-p-halophenethyl diaminodithiol analogs" Nucl. Med. Communications. 19. 303-310 (1992) ▼

[Publications] Sumiyosi T.: "Time Course of Dopamin-1,2 and Serotonin-2 Peceptor Occupancy Rates by Haloperidol and Clozapin in Vivo" Japan. J. Psychiat. Neurol.(1993) ▼

[Publications] Shiba K.: "Shnthesis of technetium-99m labeled diaminodithiol for bifunctional chelating agents" Appl. Radiat. Isot..42(12). 1159-1164 (1991) ▼

[Publications] Shiba K.: "Technetium-99m p-iodophenethyl(DADT-IPE); Potential brain perfusion imaging agent for SPECT" Nucl. Med. Biol.19(3). 303-310 (1992) ▼

[Publications] Sumiyosi T.: "Time course of dopamine-2 and serotonin-2 receptor occupancy rates by haloperidol and clozapine in vivo" Jap. J. Psychiat. Neurol. ▼

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