Monozygotic Twins Discordant for Narcolepsy.

A male patient with narcolepsy, the first of monozygotic twins, was reported. Five of the six siblings are healthy. A brother of his mother is suffering from excessive daytime sleepiness (EDS). The patient started to sleep frequently at his office after the age of 30 and was given a nickname, "Nemuri-Kyoshiro," denoting a sleepy fellow. At about 40 years of age, cataplexy on emotional excitement, hypnagogic hallucinations and sleep paralysis developed.

His body weight at the time of birth in 1924 was about 1,700g which was smaller than his twin brother. He was also inferior to his twin brother with regard to manual dexterity and physique during their elementary school days. After graduation from junior high school, the patient became a resident employee of a bookstore and attended an evening business school for 5 years. His twin brother worked at an electrical company and never attempted to receive advanced education. The patient suffered from hilus tuberculosis at the age of 16. He was later employed at a government office, and attended an evening college for another 6 years. His twin brother did not experience EDS, and rather was a short sleeper, and had some difficulty in falling asleep.

The patient visited the Neuropsychiatric Clinic of Tokyo University Hospital in 1976. On daytime polygraphy, he showed tendency to fall asleep and a sleep-onset micro-REM episode. His twin brother showed only drowsy state on EEG polygraphy. On psychometry both twins showed similar profiles in Yatabe-Gilford Personality Inventory, Todai Multiple Personality Inventory and Rorschach Test. All of the genetic markers so far examined were identical. Blood types: O, MNss, CCDee, Fy(a+b-), Jk(a+b-), P1. Ear Wax: dry. PTC(+), MDH(-), Hp(2-1). HLA: A2, A9, B15, Cw1, Cw3. Dermatoglyphic features: concordant. The probability of being MZ was 0.983.