

Table 2. Specific variant forms of RTT (meets criteria for atypical RTT).

Preserved Speech Variant (Zappella Variant)

Clinical features

- Regression at 1-3 yrs, prolonged plateau phase
- Milder reduction of hand skills
 - Better retained hand use
- Recovery of language after regression
 - Mean age of recovery is 5 yrs
 - Single words or phrases
- Milder intellectual disability (IQ up to 50)
- Autistic behaviors common
- Decreased frequency of typical RTT features
 - Rare epilepsy
 - Rare autonomic dysfunction
 - Milder scoliosis and kyphosis
 - Normal head circumference
 - Normal height and weight in most

Molecular Genetics

- Mutations in *MECP2* found in the majority of cases

Early Seizure Variant (Hanefeld Variant)

Clinical features

- Early onset of seizures
 - Before 5 months of life
 - Infantile spasms
- Refractory myoclonic epilepsy
- Seizure onset before regression
- Decreased frequency of typical RTT features

Molecular Genetics

- Mutations in *MECP2* rarely found
- Analysis for mutations in *CDKL5* should be performed

Congenital Variant (Rolando Variant)

Clinical features

- Grossly abnormal initial development
 - Severe psychomotor delay
 - Inability to walk
- Severe postnatal microcephaly before 4 months
- Regression in the first 5 months
- Lack of typical intense “RTT” eye gaze
- Typical RTT autonomic abnormalities present
 - Small cold hands and feet
 - Peripheral vasomotor disturbances
 - Breathing abnormalities while

Molecular Genetics

- Mutations in *MECP2* rarely found
- Analysis for mutations in *FOXP1* should be performed

Adapted from Neul JL, Kaufmann WE, Glaze DG, Christodoulou J, Clarke AJ, Bahi-Buisson N, Leonard H, Bailey MES, Schanen NC, Zappella M, Renieri A, Huppke P, Percy AK, for the RettSearch Consortium. 2010. Rett Syndrome: Revised Diagnostic Criteria and Nomenclature. *Ann Neurol*: in press. Courtesy of Wiley-Blackwell Publisher.