Condition: Rett syndrome

Inheritance:
X-linked dominant; usually lethal in males.

Genetic etiology:
Mutation in *MECP2* gene, which is involved in the silencing of genes contained methylated CpG residues. Most mutations are de novo.

Frequency:
1/8,000 females.

Clinical features:
Rett syndrome affects females for the most part, with affected males usually resulting in miscarriage. Affected girls are normal at birth and develop normally for 6-18 months, after which development stagnates and then regresses. Autistic features, seizures, acquired microcephaly, and growth retardation are common. Purposeful hand use is lost, replaced by wringing stereotypical movements. Rare affected males who survive to be born have a severe neonatal encephalopathy.

Management:
Supportive care.

Genetic counseling:
Most cases are de novo mutations, so recurrence is rare. A women with nonrandom X inactivation could be a carrier for an *MECP2* mutation without manifesting symptoms.

Human Genetics and Genomics, Fourth Edition. Bruce R. Korf and Mira B. Irons.