Supplemental material placed on this supplemental material which has been supplied by the author(s) J Med Genet, et al. Zhang K

**A**

**Mutation**

- Missense
- Truncating

Percent survival vs Age (y)

P = 0.018

**B**

**VHL type**

- Type 1
- Type 2

Percent survival vs Age (y)

P = 0.011

**C**

**Onset age**

- Onset ≤28
- Onset > 28

Percent survival vs Age (y)

P = 0.030

**D**

**First symptom**

- CNS
- Abdomen

Percent survival vs Age (y)

P = 0.001