Periodic paralysis describes a group of rare primary inherited disorders that are mostly autosomal dominant and cause periodic weakness.

Pathogenesis - In general, the underlying abnormality is a defect in a skeletal muscle ion channel.

Clinical features - Symptoms begin early in life (before age 25) and follow rest or sleep rather than exertion. Alertness is completely preserved during attacks, and power is normal between attacks.

Hypokalaemic form - Predominantly inherited but can also arise sporadically. Hypokalaemia during attacks is generally mild but symptoms respond rapidly to potassium supplementation. Acetazolamide provides effective prophylaxis.

Hyperkalaemic form - Milder and almost always inherited. Virtually never requires intensive care. Responds to carbohydrate administration. Thiazides or acetazolamide provide effective prophylaxis.

Treatment - Usually successful in both preventing attacks and preventing chronic weakness which may develop after many years of attacks in untreated patients. The three main forms of periodic paralysis are hypokalaemic, hyperkalaemic, and mixed forms.