

Table 15.5 Common neuropathies seen in pregnancy and the puerperium

Neuropathy	Neurologic symptoms/signs	Etiology	Treatment
Bell's palsy (facial nerve or cranial nerve VII palsy)	Asymmetric facial droop and unilateral weakness of eye closure Taste on anterior third of tongue may be impaired and there may be an increased sensitivity to noise from the ear on the affected side	Edema of facial nerve In women of reproductive age 17/100,000 versus 57/100,000 in pregnancy. Most cases occur in third trimester or peripartum and in patients with pre-eclampsia [84,85]	Prednisone (1 mg/kg/day for 7 days) may improve recovery which is generally good but may take up to 6 months. Antivirals do not appear to affect recovery [86] If eye does not close at night, it may need to be patched shut with gauze compressed by tape
Meralgia paresthetica (lateral femoral cutaneous nerve palsy)	Burning, numbness of tingling over the upper outer thigh. Symptoms made worse by standing or extending leg. Improve with sitting or lying. May be bilateral	Compression of lateral femoral cutaneous nerve at groin by gravid abdomen and edema	Usually resolves in weeks to months following delivery
Carpal tunnel syndrome	Numbness, tingling or pain of the thumb, index finger and middle fingers. Often awakes patient at night and relieved by shaking hand. Pain may radiate into forearm. Often bilateral	Edema within the carpal tunnel at the wrist causes compression of median nerve Present in 5–10% of pregnant women [87]	Splints that hold wrist in neutral position may help decrease nerve compression. Most cases resolve in months following pregnancy
Obturator nerve palsy	Medial thigh pain and adductor weakness causing a circumducting wide-based gait	During vaginal delivery the nerve is compressed against the lateral wall of the pelvis as it crosses the upper margin of the obturator internus muscle	Most cases resolve in months following pregnancy [88]
Femoral neuropathy	Weakness of quadriceps (“knee buckling”) with sparing of thigh adduction, sensory loss over the anterior thigh and most of the medial thigh	Lithotomy positioning (with sharp flexion of the hip) can compress the nerve at the inguinal ligament. Excessive hip abduction and external rotation can cause additional stretching of the nerve. This is a particular risk when the patient has had an epidural anesthetic during labor because the anesthetic allows prolonged sharp flexion and external rotation that would otherwise be limited by pain and muscular resistance	Usually treated with physical therapy, avoiding hip abduction and external rotation. Knee bracing can be used to prevent buckling of the knee Recovery typically occurs over 3–4 months
Peroneal nerve compression	Foot drop with tenderness and paresthesias of the dorsum of the foot and anterolateral leg. Often not apparent until 24–48 hours post partum	Prolonged squatting, sustained knee flexion or pressure on the fibular head from stirrups or palmar pressure during pushing	Usually self-resolving within 8 weeks. May require short leg brace for a few weeks

are not affected. Myasthenic crisis is a term used to describe weakness associated with MG that is severe enough to require endotracheal intubation or delay extubation following surgery. It is often accompanied by bulbar muscle weakness that causes dysphagia and potentially aspiration.

Like most autoimmune conditions, MG affects women under 40 years more often than men (3:1). Myasthenia is also associated with other autoimmune diseases, in particular hypothyroidism. More than 80% of women who develop MG before 40 years of age also have hyperplasia of the thymus or a thymoma [90]. It is the thymus that is the source of anti-AchR antibodies and the likely origin of the type of autoimmune MG most commonly seen in pregnancy.

It has been estimated that MG affects one pregnancy in 20,000. Most women who become pregnant with MG are aware of their diagnosis before conception. A prior diagnosis of MG makes management during pregnancy easier, as long as the clinician is aware of specific problems [91]. Particular to pregnancy is the concern that maternal anti-AchR autoantibodies cross the placenta and cause fetal or neonatal myasthenia in up to 20% of pregnancies (see below).

## Diagnosis

A new diagnosis of MG is suggested by clinical examination when there is early muscle fatigue and weakness.