

Sympathetic Chain

A number of diseases cause abnormalities in the vasculature of the hand (e.g. Raynaud's disease and Reflex Sympathetic Dystrophy). One of the modalities used in an attempt to relieve the symptoms include a sympathectomy of the inferior cervical ganglion. This can be done surgically or chemically, in which the latter is via injection of a chemical to disrupt the ganglion.

Horner's syndrome is the effect seen when the sympathetic chain is disrupted in the head/neck. It results in a 'para-sympathetic overload', namely:

- Myosis (constricted pupil)
- Anhydrosis (skin dryness)
- Ptosis (eyelid drooping)

This can be caused by upper thoracic disc prolapse, apical lung malignancy, brachial plexus trauma or iatrogenically.

Lumbar Sympathetic Chain

One of the options for treating peripheral vascular in the legs is to perform a sympathectomy in the lumbar spine. This involves the destruction of the sympathetic chain. It may be done as a closed technique, which involves instilling alcohol or phenol to destroy the chain or it can be done surgically.

Sympathectomy is, therefore, a common side effect on an anterior approach to the lumbar spine. This results in a leg that is slightly warmer than the opposite.

Superior Hypogastric Plexus

This sympathetic plexus is made up of pre- and post-ganglionic fibers. It lies in front of the aortic bifurcation and left iliac vein, and more distally, between the common iliac arteries. It then lies on the bodies of L5 and S1.

Because of its location, it is vulnerable to approaches to the anterior aspect of this region. Damage to the plexus can result in retrograde ejaculation.