Polyarteritis Nodosa

What is Polyarteritis Nodosa?

Polyarteritis Nodosa (PAN) is a very rare vasculitic disease which affects the medium sized vessels. It can affect any organ in the body but commonly the muscles, joints, intestines, nerves and skin are affected. It can be associated with Hepatitis B virus infection.

Who are affected?

PAN is most common in the middle-aged.

What is the aetiology (causes)?

The cause of PAN is not yet known. In some people there is a clear association between PAN and hepatitis B virus infection although why this is the case is not entirely clear. Only a very few people with hepatitis B infection ever develop PAN and only a small proportion of people with PAN have hepatitis B infection.

What are the symptoms?

It depends on the area affected. If the bowels are affected this can lead to pain in the abdomen or severe pain after eating (mesenteric angina). Sometimes the reduction of blood flow to the bowels leads to inflammation, bleeding, ulcers and sometimes perforation of the bowel. Involvement of the nerves can lead to numbness, pain or pins and needles in the affected nerves and weakness in the muscles. Aching in the muscles and joints is common and some patients develop skin rashes or ulcers.

Diagnosis

As with other types of vasculitis there is no one diagnostic test. Diagnosis is based on the symptoms described by the patient, physical examination, laboratory tests and possibly biopsy of the affected area. Blood tests will show evidence of inflammation. The blood vessels in the abdomen are commonly affected and angiography (x-rays of the blood vessels) can show typical findings which help with the diagnosis.

It is important to test patients with PAN for hepatitis B virus as this may require separate treatment.
Treatment

High dose steroids and cyclophosphamide are often used to get the inflammation under control (remission induction). Once under control treatment is often continued for 12 months with low dose treatment and then can be stopped in some patients.

Patients with hepatitis B virus infection will need specific treatment for the virus infection with anti-viral drugs, usually under specialist care.

Drugs and Side effects

For information on the main drugs prescribed for Polyarteritis Nodosa see:

- Cyclophosphamide
- Steroids

For information on other drugs used in the treatment of vasculitis see Glossary of drugs and side effects.

Prognosis

With treatment the prognosis is generally good. In most cases treatment can be stopped after 12 months. In some patients the disease relapses requiring longer term treatment.

Key Points

- PAN is a rare type of vasculitis
- It may be associated with hepatitis B virus infection
- Treatment depends on the severity and the presence of hepatitis B virus.

Related Vasculitis Articles

- Fertility and Vasculitis - Dr David Jayne
- Vasculitis and the Eyes - Dr Catherine Guly

Further reading

- Medium-size Vessel Diseases - Michael J Dillon, Despina Eletheriou, Paul A Brogan

Personal stories

A personal and inspirational story of a PAN patient: Martyn's story