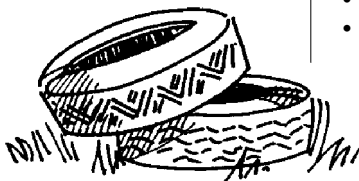


Barmah Forest virus

Barmah Forest virus (BFV) is one of the many viruses that can be spread by mosquitoes (arboviruses). The name Barmah Forest relates to the place where it was first isolated and identified. It is thought to be unique to the mainland of Australia and is an important cause of inflammation of the joints (viral polyarthritis).

It belongs to the same family (alphaviruses) as the Ross River fever virus and causes a similar type of illness. However, Ross River fever is much more common (causing thousands of cases a year). Both are widespread in Australia, but more common in northern Australia, especially in the warmer months.



Spread of the virus

The only way of catching the virus is by being bitten by an infected mosquito. A number of *Culex* and *Aedes* types of mosquito can transmit BFV. The virus passes from the mosquito to a human. A human who has the virus can transmit the virus back to a mosquito. Kangaroos, possums and livestock can also carry the virus. A person cannot directly catch the virus from another person. After getting BFV once, it is thought lifelong immunity develops.

Large outbreaks of the virus can occur when unusually warm, wet weath-

er results in higher than usual numbers of mosquitoes. There were 301 cases notified in NSW for the first six months of 2003, although it is thought the real number of cases would be far greater than this. Updated figures and surveillance details can be found at www.arbovirus.health.nsw.gov.au/areas/arbovirus/human/bfnotif.htm#state

Symptoms

The illness starts about 7-9 days after being bitten by an infected mosquito.

Main symptoms:

- fever
- tiredness
- joint and muscle pains
- joint stiffness and swelling
- rash

Other symptoms may include:

- headache
- sore throat
- swollen glands
- night sweats
- nausea
- loss of appetite
- dizziness
- light-headedness

The illness affects people mostly in the 30-50 year age group, although children and older people can get it. Men and women are equally affected. Many people (especially children) get a mild illness and may not realise they have been infected. More than half those diagnosed with the virus need to take time off work (most return to work within six weeks), and 10-50% can have prolonged symptoms including joint pains and arthritis that can last several months. Those whose joints are affected may be reassured to know that lasting damage to the joints does not occur. Everyone eventually recovers.

Barmah Forest (BFV) is a milder illness than Ross River fever and the joint pains and arthritis typical in both are less severe and do not last as long.

The rash is more prominent in BFV and looks like a measles rash: it usually spreads over most of the body and can occasionally be blistery. It lasts for 4-7 days on average.

Making the diagnosis

Barmah Forest virus and Ross River virus are very similar. It is impossible to tell which virus a person has without doing laboratory tests. The key to diagnosing a new case is to do two blood tests at least 10 days apart to see if antibody levels to either virus increases. There are many other causes of inflamed joints that may have to be thought about.

Treatment

There is no specific treatment for Barmah Forest virus. Medications such as paracetamol (to lessen pain and help fever) or non-steroidal anti-inflammatory drugs (for arthritic symptoms) can be taken. There is no vaccine available.

Preventing Barmah Forest and other mosquito-borne viruses

The breeding cycle of mosquitoes depends on water, therefore places where rain-water collects should be kept empty, eg. gutters kept clear, old tyres moved, plant pots drained, unused containers removed and water tanks kept covered.

Houses should have fly-screens on doors and windows. If this is not possible, consider mosquito nets on the beds.

Try to avoid being out-



side at dawn and dusk. If this is unavoidable, wear long-sleeved light coloured clothing and long trousers. Personal insect repellent should be used on exposed skin, and clothes can be sprayed with pyrethrum or permethrin liquid.



Mosquitos can carry many other diseases so it pays to avoid being bitten where possible. Do not forget to protect your children as well. Some adult insect repellents should not be used on small children so ask your chemist for advice.