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What is Ross River Virus (RRV) disease?

Ross River virus disease is a viral infection that has been reported from all the states of Australia, as well as from Papua New Guinea, the Solomon Islands and some Pacific Islands. Two cases that have so far been reported in New Zealand acquired the infection from travel overseas.

What are the symptoms?

People infected by Ross River virus may develop a wide range of symptoms. Many people do not become ill but those who do may complain of pain and tenderness in muscles and joints. Joints most commonly affected are the wrists, knees and ankles.

Flu like symptoms are also common and include fever, chills, sweating, a headache and tiredness. A rash may also occur on the trunk and limbs for a short time.

The symptoms may be similar to some rheumatic diseases and can only be diagnosed by a special blood test. Symptoms occur 3-21 days (average 9 days) after being bitten and may persist for months to years. The symptoms subside eventually and leave few or no after-effects.

Symptoms occur most commonly in adults. The disease is usually milder and runs a shorter course in children.

How can I check a person does not have Ross River Virus disease?

For suspected cases of Ross River Virus disease, serology can confirm infection. The test is simple and can be carried out by ESR. It is important to collect a specimen of serum for testing from convalescing patients.

How is it spread?

The only way that people can catch Ross River virus is by being bitten by a virus-carrying mosquito. The virus cannot be spread from person to person.

A number of different mosquitoes can spread the virus to humans. The mosquito recently discovered in Napier and Auckland has been shown to transmit Ross River virus disease in Australia but there is no evidence that this has occurred yet in New Zealand. Before disease transmission can occur, the mosquito must have bitten an infected person.

How is Ross River Virus treated?

Treatment is aimed at relieving symptoms. Your doctor may recommend rest and painkillers, such as aspirin or paracetamol, to relieve the pain and swelling of joints.

Sometimes stronger medications are required to ease the inflammation.

Most people fully recover within a month of the onset of symptoms but they can last for longer and be quite severe. Immunity develops following a case of Ross River virus disease.

How can infection be prevented?

Ross River virus is not contagious. If people avoid being bitten by mosquitoes, they cannot be infected.

There are a number of things people can do to avoid mosquito bites:

- Wear loose fitting clothing that covers the skin as much as possible - mosquitoes can bite through tight clothing - and avoid dark colours which attract mosquitoes.
- Use an effective insect repellent when outdoors. A repellent that contains the chemical DEET (diethyl toluamide) or DIMP (dimethyl phthalate) is recommended. Low DEET repellents should be used on children (preferably less than 10%).
- Doors and windows can be screened to stop mosquitoes from getting inside.
- Aerosol sprays and mosquito coils may be used indoors.
- Check your home and garden for areas where mosquitoes can breed, such as garden rubbish or blocked gutters and drains which hold water and ensure that these are kept dry.

Have there been any cases of Ross River virus in New Zealand?

Ross River virus is notifiable under the Health Act 1956 as an arboviral disease, and there are established surveillance mechanisms for the investigation and reporting on notified cases of this disease.

Only three cases of Ross River Virus have been reported in New Zealand since the disease became notifiable in the late 1970s. The most recent case was notified in April 1999 and the previous ones in 1997 and 1980. All the cases were investigated and found to have been acquired overseas.

In Australia Ross River virus is the most common arboviral disease (Communicable Disease Intelligence Vol22, No. 6, 11 June 1998).

For further information contact our office at the Auckland Regional Public Health Service and ask to speak to the Duty Health Protection Officer, Environmental Health (09) 623 4600.