

THE SYMPTOMS

The incubation period is 7-13 days.

Early symptoms are:

Fever

Muscular aches and pains

Loss of appetite

Vomiting with prostration

Later symptoms may include:

Bruising on the skin

Sore eyes

Nose bleeds

Jaundice

The fever lasts for about five days, and may be followed by significant deterioration.

Testing for the disease

If Weil's Disease is suspected, the samples should be sent direct to:

Leptospira Reference Unit (LRU)

Department of Microbiology and Immunology

County Hospital

Hereford HR1 2ERT

Tel: 01432 277707

Fax: 01432 351396

Email: leptospira.lru@hhtr.nhs.uk



British Caving Association

INFORMATION

WEIL'S DISEASE



The British Caving Association

The Old Methodist Chapel,

Great Hucklow,

Buxton,

Derbyshire.

SK17 8RG

WEIL'S DISEASE

The national rat population is increasing and between 50% and 60% of rats carry and excrete the organism *Leptospira ictero-haemorrhagiae* in their urine. Infection of humans with this organism causes an illness (commonly called Weil's disease), which has been known to result in death in 10% of cases.

There has been a recent increase in the incidence of this disease: 28 cases were notified in 2003 and 76 in 2007 (in the UK).

Formerly the disease occurred mainly among sewage or abattoir workers, farm workers and miners. However in 2008, 49 cases that had acquired indigenous infection were found to be associated with water, domestic animal or rodent contact. Two deaths were reported in England and Wales during 2008.

"Water users" of course include cavers and although there have been no deaths of cavers attributable to this disease recently, there have been a number of cases of cavers becoming infected, some of whom became very ill.

ABOUT THE ILLNESS

The organism enters the body through breaks in the skin such as cuts, blisters and abrasions, or via the lining of the nose, throat or alimentary tract. The incubation period is 7-13 days and the disease starts with a fever, muscular aches and pains, loss of appetite and vomiting with prostration. Subsequent bruising of the skin, sore eyes, nose bleeds and jaundice may occur.

The fever lasts about five days and may be followed by significant deterioration.

It is vital that the doctor be told that the patient may have been in contact with a source of infection. The symptoms can easily be mistaken for those of flu and, if the patient has a clean occupation, the possibility of Weil's Disease may be overlooked in the early stages.

Laboratory testing of blood will confirm diagnosis but this may take undue time in an ordinary hospital lab. If Weil's Disease is suspected the samples should be sent to:

Leptospira Reference Unit (LRU)
Department of Microbiology and Immunology
County Hospital
Hereford HR1 2ERT
Tel: 01432 277707
Fax: 01432 351396
Email: leptospira.lru@hhtr.nhs.uk

where they will be tested within 24 hours. Treatment is usually by Penicillin Antibiotic.

RATS AND THE ILLNESS

Rats commonly live near water and in areas where there are sources of food such as animal feed, grain or food residues from human habitation or other animals: farms, stables, high density husbandry units, around canteens in such places as quarries and along river and canal banks.

The leptospira organism is passed in the rats' urine and, while it does not live long in dry conditions, can survive some time in water.

Salt water kills the organism but there is a significant risk in tidal waters such as the lower parts of the Wye in the Forest of Dean and other rivers. The risk increases upstream and is greatest in canals, ponds or areas of slowly draining water; thus there is a significant risk in caves carrying drainage from farm land, stables or quarries.

PREVENTION

Cavers on Mendip and in the Stoney Middleton area are known to have contracted the disease. Others have suffered mild doses which were not diagnosed at the time, but which had been detected in subsequent blood tests.

Any skin wound or blister, old or new, may be infected if immersed in water polluted by the organism. By the nature of their sport it is difficult for cavers to avoid cuts and abrasions on their hands, particularly when 'digging'. Wearing gloves probably provides the most effective protection since waterproof surgical plasters on their own are unlikely to stay in place. Clean fresh water should be used to wash wounds as soon as possible.

BE AWARE

The disease is curable if recognised in time, but many doctors in urban areas will never have encountered it. If you have any reason to suspect that you have been infected, you may need to draw your doctor's attention to the possibility that the symptoms could be Weil's Disease.