

Decision of the Appeal Division

Number: 92-0070
Date: January 10, 1992
Panel: Alison H. Narod
Subject: A Claim for Lyme Disease

The worker, a self-employed miner, appeals Review Board findings dated December 11, 1990. The issue is whether his chronic borreliosis, a variant of Lyme Disease, arose out of and in the course of his employment.

The Review Board found that there was insufficient evidence to conclude that there was a relationship between the worker's condition and his employment. It acknowledged that his employment might place him at greater risk than the public at large, but it concluded that it would be speculative to find that the worker contracted Lyme Disease while in the course of his employment.

The worker appeals the Review Board's findings. He believes that the Review Board failed to take important pieces of information into proper consideration. He says that, on two separate occasions in 1985, he noticed bites of unidentified arthropods and also a feeding tick while at the cabin at his place of work. He also says that he did not hunt or fish in the area in 1984-85. Rather he stayed and worked his claim, except when he went out for supplies. He did not have much time for extracurricular activities.

He supplied a number of letters from individuals supporting his contention that he was not known as a hunter or fisherman and did not take holidays. Additionally, he supplied a letter dated March 18, 1991, from his attending physician, certifying that the worker has a lesion on his right upper lip. The doctor wrote that he cannot prove the cause of the lesion.

The worker submits that the probability of contracting chronic borreliosis due to the nature of his job is more likely than not. He also says that at the very least the issues are evenly balanced and that Section 99 of the *Workers Compensation Act* should be applied in his favour.

Decision and Reasons

There is no doubt that the worker has chronic borreliosis. The issue is whether the worker's acquisition of this disease arose out of and in the course of his employment. The difficulty in this case is that the evidence is insufficient to conclude, with confidence, where or when the insect bite that transmitted the disease occurred.

An article titled "Lyme disease in Canada" states that it is usually transmitted to humans by infected ticks, although in endemic areas biting flies and mosquitoes have been implicated. Ticks also infect numerous types of domestic and wild animals. Ticks pass the infection during the warm months, May to August. Another article, titled "Imported Case of Bannwarth's Syndrome (Chronic Lymphocytic Meningoradiculitis or Lyme Meningitis)," states that the tick, *Ixodes dammini*, feeds during the summer on mice or larger mammals such as dogs, deer or human beings.

According to the worker's written submission to the Review Board, ticks can be found on grasses, branches and leaves. They wait for a host to pass by and they attach themselves to that host in order to advance to their next stage. Most ticks need a blood meal to proceed from larva to nymph, nymph to adult, and the adult needs a blood meal before laying eggs. These ticks are called "3 host ticks." In the United States, it is the nymph that does the most infecting as the larva has picked up infection from the mouse which is thought to be the principal reservoir of infection in wildlife. An article titled "Lyme Disease A summary of the Occupational Health Concern" confirms that ticks have more than one host and can spread the disease throughout their life cycle.

The worker first inquired about making a claim in November of 1988. He related onset of his condition to 1985. However, he thought he was bitten by something which he suspected was a spider on the right side of his spine and was bitten by an unknown insect on his right wrist. He was not sure when the relevant bite occurred and placed it either in the summer or fall of 1985. He recalled having a lesion on his upper lip at some time before his health deteriorated in 1985 which he, in 1990, concluded was a tick bite.

A W.C.B. occupational health physician reviewed the claim on April 17, 1989. He thought that the likely route of transmission in this case was from the worker's dog, who accompanied the worker during his stay at his claim site and who ran through the brush and chased muskrats in the worker's mine. The dog liked to sit on the worker's lap. The worker acknowledges that a pet can pass a tick. Indeed, the worker speculated that his dog could have carried an infected tick. (He also notes that the dog developed "bad arthritis" by the fall of 1986.)

A professor of medicine at the University of California wrote in a letter dated June 15, 1990 that it is very unlikely that tick bites arise from contact with a dog's fur in the setting of heavy direct exposure to the tick's habitat. He thought the probability that the worker's illness arose from natural acquisition was at least 90%.

In view of the foregoing, the worker could have acquired the disease from a number of types of insects. If it was a tick, the tick could have been found on wild or domestic flora or fauna. If it was another insect, the transmission of the disease could have taken place outside the May to August timeframe for tick bites. The worker is uncertain when the bite occurred. Therefore, we cannot be confident about where it occurred.

I agree with the Review Board that although the worker might have been bitten by a diseased insect during the course of his employment, he also might have been bitten by one at any other time, as he lives in a rural area which most likely has as high an incidence of insects which are thought to be carriers of the disease as the area where he worked. As the Review Board noted, there was no evidence that two of the three other people in the region who the worker said had the disease worked outdoors.

Despite the letters provided by the worker and despite his contention that he carried his goldpan with him wherever he went and was thereby always in productive employment, I do not accept that the worker was acting "out of and in the course of his employment" throughout the period that he resided on his claim. I agree with the Review Board that the majority of his work was done underground, where there would be very little likelihood of being bitten by an infected insect. His non-work activities may have placed him at greater risk than when he was working.

The worker's memory does not help us. He candidly admits that he has memory problems. It is not of great assistance that in 1990 he cast his memory back to a lesion that occurred years before and, because of recently gained knowledge, concluded it was the result of a bite by an infected tick. He has not placed the date of that bite. Nor can we be comfortable that it was in fact caused by a tick, let alone an infected one.

It is simply speculation and conjecture to conclude that the worker's acquisition of the disease arose out of and in the course of employment. I agree with the Review Board that the evidence is not evenly balanced and so I would not apply Section 99.

THE APPEAL IS DENIED.

Editors' note: This decision has been edited for publication.

