Often-fatal airborne fungus turns up in Oregon

11:55 AM PST on Friday, February 20, 2009

By JOSEPH B. FRAZIER, Associated Press Writer

PORTLAND, Ore. (AP) -- A new and potentially fatal strain of an airborne fungus, related to one that killed several people on Canada's Vancouver Island, has turned up in Oregon and researchers say they don't know how it got here.

Since 1999 Cryptococcus gatti is known to have killed 19 people and sickened more than 160 others, and killed or sickened scores of animals on the island, where it remains a problem.

Between 2006 and 2008, 13 human cases were diagnosed in Washington and 9 in Western Oregon.

Molecular geneticists and microbiologists at Duke University found three varieties of Cryptococcus gatti, and one of them is unique to Oregon. It is known as Cryptococcus gatti VGIIc.

"It isn't known yet whether Oregon's VGIIc is more virulent than the others," Edmond Byrnes, lead author of the Duke study who visited Oregon to look into the new fungus, told The Associated Press on Thursday.

Cryptococcus can affect the lungs and cause fatal meningitis. Early symptoms tend to be flu-like. Byrnes said early diagnosis is important, and while lengthy treatment with antifungal drugs can cure it, about 25 percent die.

The VGIIc was found in Oregon in three people, an alpaca and a cat in 2007 and 2008, mostly in the Portland area, Byrnes said.

Dr. Paul R. Cieslak, who heads the office of communicable disease and prevention of the Oregon Health Division, said people have died from Cryptococcus, but there is no requirement to report cases, so it is unknown how many people have died.

Byrnes said the incidence among animals may be higher than reported, too, because tests to find it are expensive.

Dr. Robert Bildfell of Oregon State University's school for veterinary medicine, who took part in the study, said it most likely enters the body through the lungs, but may come in through the mouth.

He said on Vancouver Island it was generally linked to the presence of cedar, fir and alder trees, and Cieslak said that may well hold for Oregon.

The study, which appeared in the new online edition of the Journal of Infectious Diseases, said many of the people infected by varieties of Cryptococcus gatti had visited Vancouver Island. The fungus is rarely transmitted between people and animals.

The VGIIa subtype, the main cause of the Vancouver Island outbreak, is restricted to the Pacific Northwest. The VGIIb subtype has been found in Australia and on Vancouver Island. Byrnes said Oregon's VGIIc subtype is more closely related to VGIIa.

"So far, the expansion of its range shows that it will likely further expand into California, and possibly also Nevada, Montana and Idaho," Byrnes said of Cryptococcus gatti.