

'Rapidly fatal' swine flu kills in different ways: study

December 25 2009

WASHINGTON — People who die of swine flu contract a "rapidly fatal" form of the disease and tend to die of lung injury, although it strikes different people in different ways, an autopsy study showed Thursday.

In the first study of its kind, researchers in Brazil examined 21 patients aged one to 68 who died in Sao Paulo with confirmed (A)H1N1 infections in July and August.

All 21 patients "presented a progressive and rapidly fatal form of the disease," the study, which will be published in the January 1 issue of the American Thoracic Society's "American Journal of Respiratory and Critical Care Medicine", found.

All were found to have died of severe acute lung injury, but with three distinct patterns of damage to the lungs, the study said, indicating to the researchers that swine flu "killed in distinct ways".

"All patients have a picture of acute lung injury," said the study's lead author, Thais Mauad, an associate professor of the Department of Pathology at Sao Paulo University.

But some of the patients had only acute lung injury while in others it was associated with necrotizing bronchiolitis -- severe inflammation of the small airway passages in the lungs -- and in others there was "a hemorrhagic pattern," Mauad said.

Patients with necrotizing bronchiolitis were more likely to also have a bacterial co-infection, while patients with heart disease and cancer were more likely to have a hemorrhagic condition in their lungs.

"It is important to bear in mind that patients with underlying medical conditions must be adequately monitored, since they are at greater risk of developing a severe H1N1 infection," said Mauad.

Sixteen of the patients had chronic underlying health conditions, such as heart disease or cancer, the study found.

The researchers also found evidence of an "aberrant immune response" in the lungs of some of the patients, which "suggests that an overly vigorous host inflammatory response triggered by the viral infection may spill over to and damage lung tissue, causing acute lung injury and fatal respiratory failure," said John Heffner, a former president of the American Thoracic Society.

http://www.google.com/hostednews/afp/article/ALeqM5jdEvD5p_e4BP3aAeHdbOd-3cyl3g