

The Guardian

BSE-infected sheep a 'greater risk' to humans

Lee Elliot Major

Wed 9 Jan 2002 12.22 GMT

As many as 150,000 people could die from the human form of mad cow's disease, under a "worst-case" scenario of a BSE-infected sheep epidemic, researchers have predicted.

The academics today warned that if BSE has passed from cows to sheep, lamb could pose a much greater brain disease risk than BSE-infected beef, and called for a large-scale BSE screening of the 40m national flock of sheep.

Professor Neil Ferguson, from the Department of Infectious Disease Epidemiology at Imperial College, said: "Our latest analysis shows that the current risk from sheep could be greater than that from cattle, due to the more intensive controls in place to protect human health from exposure to infected cattle, as compared with sheep."

The Imperial College team predicted that the future number of deaths from Creutzfeldt-Jakob disease (vCJD) due to exposure to BSE in beef was likely to lie between 50 and 50,000.

In the "worst case" scenario of a growing sheep epidemic, the range of future numbers of death increased to between 110 and 150,000. Other more optimistic scenarios had little impact on the figures.

The latest figures from the Department of Health, dated January 7, show that a total of 113 definite and probable cases of vCJD have been recorded since the disease first emerged in 1995. Nine of these victims are still alive.

A government-funded study set up to estimate the human health risk from BSE infection of British sheep ended in shambles last year. After four years of research, scientists at the Institute of Animal Health found they had mistakenly been examining cow brains believing them to be from sheep. Scientists have long accepted there is a theoretical risk of BSE entering sheep.

The Imperial College study accepted the premise that it is possible for sheep to be infected with BSE.

Given that assumption, a mathematical model was developed incorporating data on how infectiousness develops in sheep. Three different scenarios were looked at - a "worst case" situation, where BSE spreads both within and between flocks, one where BSE only spreads within a flock, and a "best case", where the disease does not spread at all. The findings, published today in the journal *Nature*, show that sheep could potentially be a bigger BSE hazard than cattle.

The researchers say the potential health risk from sheep could be cut by up to 90% if controls similar to those introduced for cattle were introduced. These would include restrictions on the age of sheep slaughtered for consumption, and bans to prevent high-risk tissues from entering the human food supply.

The Human BSE Foundation, which represents families bereaved by vCJD, called for immediate action whether or not it was proved that BSE was in sheep. Secretary Frances Hall, whose son, Peter, died from the disease in 1996, said: "A lot of families have been changing over to eating more lamb because of fears of BSE. If it is in sheep, people could have been eating contaminated meat for years."

Topics

- Research
- Higher education
- BSE
- Medical research
- Epidemics