Is Mad Cow Disease Caused by a Bacteria?

Transmissible spongiform encephalopathies (TSE's), include bovine spongiform encephalopathy (also called BSE or "mad cow disease"), Creutzfeldt-Jakob disease (CJD) in humans, and scrapie in sheep. They remain a mystery, their cause hotly debated. But between 1994 and 1996, 12 people in England came down with CJD, the human form of mad cow, and all had eaten beef from suspect cows. Here researcher/internist Lawrence Broxmeyer MD offers a new approach to this disease.


"Current mad cow diagnosis", said Lawrence Broxmeyer MD, "lies solely in the detection of late appearing 'prions', an acronym for hypothesized, gene-less, misfolded proteins, somehow claimed to cause the disease. Yet laboratory preparations of prions contain other things, which could include unidentified bacteria or viruses. Furthermore, the rigors of prion purification alone, might, in and of themselves, have killed the causative virus or bacteria. Therefore, even if samples appear to infect animals, it is impossible to prove that prions are causative and not just the end result of an infectious process."

"Furthermore", Lawrence Broxmeyer MD asserted, "Manuelidis found viral-like particles, which even when separated from prions, were responsible for spongiform STE's. Subsequently, Lasmezas's study showed that 55% of mice injected with cattle BSE, and who came down with disease, had no detectable prions. Still, incredibly, prions, are held as existing TSE dogma and Heino Dringer, who did pioneer work on their nature, candidly predicts "it will turn out that the prion concept is wrong." Many animals that die of spongiform TSE's never show evidence of misfolded proteins, and Dr. Frank Bastian, of Tulane, an authority, thinks the disorder is caused by the bacterial DNA he found in this group of diseases."

"Recently," added Lawrence Broxmeyer MD, "Roels and Walravens isolated Mycobacterium bovis (bovine tuberculosis) from the brain of a cow with the clinical and histopathological signs of mad cow. Moreover, epidemiologic maps of the origins and peak incidence of mad cow disease in the UK, where it all began, suggestively match those of England's areas of highest bovine tuberculosis, the Southwest. The neurotaxic potential for cow tuberculosis was shown in pre-1960 England, where one quarter of all tuberculous meningitis victims suffered from Mycobacterium bovis infection from cows. And Harley's study showed pathology identical to "mad cow" from systemic M. bovis in cattle, causing a tuberculous spongiform encephalitis."

"In addition to all of this" said Lawrence Broxmeyer MD, prions have been described as amyloid and in the past amyloid was usually the deposition that took place due in the course of chronic inflammatory disease, mainly tuberculosis, its usual precipitating cause."

"M. bovis or cow tuberculosis, fowl tuberculosis or Mycobacterium avium subspecies paratuberculosis causes Johne's disease, a problem known and neglected in cattle and sheep for almost a century, and rapidly emerging as the disease of the new millennium." revealed Lawrence Broxmeyer MD "Not only has M. paratuberculosis been found in human Crohn's disease, but both Crohn's and Johne's cross-react with the antigens of cattle paratuberculosis. Furthermore, central neurologic manifestations of Crohn's disease are not unknown."
Lawrence Broxmeyer MD sums up that "there is no known disease which better fits into what is occurring in Mad Cow and the spongiform encephalopathies than bovine tuberculosis and its blood-brain barrier penetrating, virus-like, cell-wall-deficient forms. It is for these reasons that future research needs to be aimed in this direction."

"In his 1932 historical overview, Webb speculates that man was first introduced to tuberculosis when he began domesticating cattle around 5000 B.C.. Thus one could surmise that human tuberculosis originated by transfer of M. bovis, which has the potential to infect humans, into the human body, where it adapted as the tubercle bacillus", Lawrence Broxmeyer MD related. "Garnier though, using deletion analysis, recently questioned this, placing human M. tuberculosis as having come first, and, having infected cows at the time of cattle domestication 10,000-15,000 years ago. At any rate, prior to that, the tuberculous bacilli, always soil born, first infested and then infected an assortment of mammals, both ruminants and primates."

"Modern genetics has verified that DNA between human (M. tuberculosis) and cow (M. bovis) tuberculosis are almost identical, indicating they are virtually the same species." said Lawrence Broxmeyer MD. "Even in culture plates their appearance is similar."

Once the most prevalent infectious disease of cattle in the US, bovine TB caused more losses among US farm animals in the early part of this century than all other infectious diseases combined. And M. bovis still causes worldwide annual losses to agriculture of $3 billion dollars. In his Nobel Prize address of 1901 Von Behring stated 'As you know, tuberculosis in cattle is one of the most damaging infectious diseases to affect agriculture'."

"Today", concluded Lawrence Broxmeyer MD, "the greatest hindrance to finding a cure for TSE's lies in the very theory they have become embedded in. Santana's oft quoted "he who does not remember the past is condemned to relive it in the future" seems clear here. Early twentieth century recognition of the spread of cow tuberculosis was obvious and at one time American milk contained the words: "tuberculin tested," an epitaph to the up to 30% of human cases of pre-pasteurization Tuberculosis caused by bovine or cow tuberculosis."

Additional information, and downloading this article by Lawrence Broxmeyer MD and his on-going research can be found at:
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