

# Occupational risk factors for the sporadic form of Creutzfeldt-Jakob disease

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## KEY WORDS

Creutzfeldt-Jakob disease; epidemiology; occupational health

## SUMMARY

*Some case reports among European farmers and a few case-control studies suggested the hypothesis of an increased risk of the sporadic form of CJD (sCJD) associated with livestock farming or work as a butcher. Also, the discovery of the possibility of transmission of the disease via blood or by contact following corneal or dura madre transplant suggested that health occupations might also run higher sCJD risks. However, a meta-analysis of three case-control studies and a multicentre European study did not find any positive association between sCJD and health-related jobs or occupational contact with livestock, such as cattle and sheep, or animal products. To explore possible occupational risk factors for Creutzfeldt-Jakob disease (CJD), we used a publicly available US database including about 6 million deaths in 24 states during 1984-95. Cases were 636 deaths (300 men and 336 women) with CJD (ICD-9 code 046.1) as the underlying cause of death. Controls were 3,180 deaths randomly selected from among those who died from all other diseases except those affecting the central nervous system. CJD cases represented a wide variety of occupations (159) and industries (147). Among occupations and industries, for which previous reports suggested potential exposure to a transmissible spongiform encephalopathy (TSE) agent, the OR for CJD was significantly increased among butchers (OR=6.8, 95% C.I. 1.5, 30.1, based on 4 cases and 3 controls), and persons working in offices of physicians (OR=4.6, 95% C.I. 1.2, 17.6 based on 5 cases and 4 controls). Nine other occupations and seven other industries, for which no previous suggestion existed in the literature, also showed significant associations. Overall, our results suggest that occupational exposures are not an important source of sCJD infection. However, as the excess among butchers and some workers in health occupations was consistent with previous reports, more in-depth research is warranted to address the hypothesis.*

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Pervenuto il 28.11.2002 - Accettato il 15.1.2003

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Comunicazione orale alla XXV Riunione Annuale dell'Associazione Italiana di Epidemiologia, Venezia 4 Ottobre 2001