PubMed

Abstract

Full text links

FREE FINAL TEXT OXFORD JOURNALS

Am J Epidemiol. 2011 Oct 15;174(8):945-8. doi: 10.1093/aje/kwr201. Epub 2011 Sep 13.

Use of penicillin and other antibiotics and risk of multiple sclerosis: a population-based case-control study.

Nørgaard M[1], Nielsen RB, Jacobsen JB, Gradus JL, Stenager E, Koch-Henriksen N, Lash TL, Sørensen HT.

Author information

Abstract

A 2006 study from the United Kingdom found that penicillin use may decrease the risk of multiple sclerosis (MS). To confirm this finding, the authors conducted a nationwide case-control study in Denmark, using the Danish Multiple Sclerosis Registry to identify 3,259 patients with MS onset from 1996 to 2008, and selected 10 population controls per case (n = 32,590), matched on sex and age. Through the National Prescription Database, prescriptions for antibiotics redeemed from 1995 to 2008 and before the date of first MS symptom/index date were identified. Conditional logistic regression analysis was used to compute odds ratios associating antibiotic use with MS occurrence. In total, 1,922 patients (59%) redeemed penicillin prescriptions before the index date and 2,292 (70%) redeemed any type of antibiotic prescription. Penicillin use was associated with an increased risk of MS (odds ratio = 1.21, 95% confidence interval: 1.10, 1.27). Use of any type of antibiotic was similarly associated with an increased risk of MS (odds ratio = 1.41, 95% confidence interval: 1.29, 1.53). The odds ratios for different types of antibiotics ranged between 1.08 and 1.83. Thus, this study found that penicillin use and use of other antibiotics were similarly associated with increased risk of MS, suggesting that the underlying infections may be causally associated with MS.

Comment in

Re: "Use of penicillin and other antibiotics and risk of multiple sclerosis: a population-based case-control study". [Am J Epidemiol. 2012]

Re: "Use of penicillin and other antibiotics and risk of multiple sclerosis: a population-based case-control study". [Am J Epidemiol. 2012]

PMID: 21920946 [PubMed - indexed for MEDLINE] Free full text

Publication Types, MeSH Terms, Substances

LinkOut - more resources

PubMed Commons

PubMed Commons home

0 comments

How to join PubMed Commons