PLoS One. 2011 Mar 29;6(3):e18227.

Psoriasis and hypertension severity: results from a case-control study.

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Abstract

BACKGROUND: Epidemiologic studies have provided new insights into the association between psoriasis and cardiovascular diseases. Previous population studies have examined hypertension frequency in psoriasis patients. However, the relationship between severity of hypertension and psoriasis has not been characterized.

OBJECTIVE: We sought to investigate whether patients with psoriasis have more difficult-to-manage hypertension compared to non-psoriatic hypertensive patients.

APPROACH: We performed a case-control study using the University of California Davis electronic medical records. The cases were defined as patients diagnosed with both psoriasis and hypertension, and controls were defined as patients with hypertension and without psoriasis. In this identified population, 835 cases were matched on age, sex, and body mass index (BMI) to 2418 control patients.

KEY RESULTS: Treatment with multiple anti-hypertensives was significantly associated with the presence of psoriasis using univariate ($p < 0.0001$) and multivariable analysis, after adjusting for diabetes, hyperlipidemia, and race ($p < 0.0001$). Compared to hypertensive patients without psoriasis, psoriasis patients with hypertension were 5 times more likely to be on a monotherapy antihypertensive regimen (95% CI 3.607.05), 9.5 times more likely to be on dual antihypertensive therapy (95% CI 6.68-13.65), 16.5 times more likely to be on triple antihypertensive regimen (95% CI 11.01-24.84), and 19.9 times more likely to be on quadruple therapy or centrally-acting agent (95% CI 10.58-37.33) in multivariable analysis after adjusting for traditional cardiac risk factors.

CONCLUSIONS: Psoriasis patients appear to have more difficult-to-control hypertension compared to non-psoriatic, hypertensive patients.

PMID: 21479272 [PubMed - indexed for MEDLINE] PMCID: PMC3066207 Free PMC Article

Ann Indian Acad Neurol. 2012 Jan;15(1):19-22.

Low cholesterol as a risk factor for primary intracerebral hemorrhage: A case-control study.

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Abstract

INTRODUCTION: An inverse association between serum cholesterol and the risk of hemorrhagic stroke has been noted in epidemiological studies. We performed a case-control study to assess the relationship between primary intracerebral hemorrhage (ICH) and low serum cholesterol.

MATERIALS AND METHODS: Prospectively recruited fully evaluated patients with ICH were compared with a control group based in a primary care practice, i.e. age- and sex-matched individuals attending the routine preventive health check-up. Low cholesterol was defined by the sex-specific lowest quintile of the population.

RESULTS: The proportion of ICH patients with low cholesterol was significantly higher than the controls (68% vs. 43%). Mean total cholesterol was also signficantly low in ICH patients compared with controls (177 mg/dL vs. 200 mg/dl; P-value = 0.0006). Low-density lipoprotein cholesterol (LDL-c) and triglycerides were also significantly low in ICH patients compared with controls. Mean LDL-C in the ICH patient group was 114 mg/dL, whereas it was 128.5 mg/dL in the control group (P-value = 0.016). There was no significant difference in the high-density lipoprotein (HDL) levels in both groups. In a subgroup analysis, both men and women in the ICH group had a significantly low mean cholesterol compared with the control group. Although lower mean cholesterol was seen in both young and older individuals in the ICH group than in controls, the difference was significant only in the older group (age >45 years). In multivariate analysis, presence of low cholesterol remained a significant predictor of hemorrhage. The odds ratio of low cholesterol in the hemorrhage cases was 2.75 (95% CI = 1.44-5.49) unadjusted and 2.15 (1.13-4.70) adjusted for age and hypertension.

CONCLUSIONS: This study confirms an increased risk of primary ICH associated with low cholesterol both in men and women, especially in older individuals.

PMID: 22412267 [PubMed - in process] PMCID: PMC3299064

J Foot Ankle Res. 2012 Apr 16;5(1):9. [Epub ahead of print]

Comparison of shoe-length fit between people with and without diabetic peripheral neuropathy: a case-control study.

McInnes AD, Hashmi F, Farndon LJ, Church A, Haley M, Sanger DM, Vernon W.

Abstract

ABSTRACT:

BACKGROUND: Amongst the many identified mechanisms leading to diabetic foot ulceration, ill-fitting footwear is one. There is anecdotal evidence that people with diabetic peripheral neuropathy wear shoes that are too small in order to increase the sensation of fit. The aim of this study was to determine whether people with diabetic sensory neuropathy wear appropriate length footwear.

METHODS: A case-control design was used to compare internal shoe length and foot length differences between a group of people with diabetes and peripheral sensory neuropathy and a group of people without diabetes and no peripheral sensory neuropathy. Shoe and foot length measurements were taken using a calibrated Internal Shoe Size Gauge(R) and a Brannock Device(R), respectively.

RESULTS: Data was collected from 85 participants with diabetes and 118 participants without diabetes. The mean difference between shoe and foot length was not significantly different between the two groups. However, a significant number of participants within both groups had a shoe to foot length difference that lay outside a previously suggested 10 to 15 mm range. From the diabetic and non-diabetic groups 82% (70/85) and 66% (78/118), respectively had a foot to shoe length difference outside this same range.

CONCLUSIONS: This study shows that although there is no significant difference in shoe-length fit between participants with and without neuropathy, a significant proportion of these populations wear shoes that are either too long or too short for their foot length according to the 10 to 15 mm value used for comparison. The study has highlighted the need for standardised approaches when considering the allowance required between foot and internal shoe length and for the measurement and comparison of foot and shoe dimensions.

PMID: 22507446 [PubMed - as supplied by publisher] Free full text

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Rotating night shift work and risk of type 2 diabetes: two prospective cohort studies in women.

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Abstract

BACKGROUND: Rotating night shift work disrupts circadian rhythms and has been associated with obesity, metabolic syndrome, and glucose dysregulation. However, its association with type 2 diabetes remains unclear. Therefore, we aimed to evaluate this association in two cohorts of US women.

METHODS AND FINDINGS: We followed 69,269 women aged 42-67 in Nurses' Health Study I (NHS I, 1988-2008), and 107,915 women aged 25-42 in NHS II (1989-2007) without diabetes, cardiovascular disease, and cancer at baseline. Participants were asked how long they had worked rotating night shifts (defined as at least three nights/month in addition to days and evenings in that month) at baseline. This information was updated every 2-4 years in NHS II. Self-reported type 2 diabetes was confirmed by a validated supplementary questionnaire. We documented 6,165 (NHS I) and 3,961 (NHS II) incident type 2 diabetes cases during the 18-20 years of follow-up. In the Cox proportional models adjusted for diabetes risk factors, duration of shift work was monotonically associated with an increased risk of type 2 diabetes in both cohorts. Compared with women who reported no shift work, the pooled hazard ratios (95% confidence intervals) for participants with 1-2, 3-9, 10-19, and ≥20 years of shift work were 1.05 (1.00-1.11), 1.20 (1.14-1.26), 1.40 (1.30-1.51), and 1.58 (1.43-1.74, p-value for trend <0.001), respectively. Further adjustment for updated body mass index attenuated the association, and the pooled hazard ratios were 1.03 (0.98-1.08), 1.06 (1.01-1.11), 1.10 (1.02-1.18), and 1.24 (1.13-1.37, p-value for trend <0.001).

CONCLUSIONS: Our results suggest that an extended period of rotating night shift work is associated with a modestly increased risk of type 2 diabetes in women, which appears to be partly mediated through body weight. Proper screening and intervention strategies in rotating night shift workers are needed for prevention of diabetes.

Comment in

PLoS Med. 2011 Dec;8(12):e1001138.
PLoS Med. 2011 Dec;8(12):e1001152.

PMID: 22162955 [PubMed - indexed for MEDLINE] PMCID: PMC3232220 **Free PMC Article**

Diabetes Care. 2008 Mar;31(3):470-5. Epub 2007 Dec 10.

Breast-feeding and type 2 diabetes in the youth of three ethnic groups: the SEARCh for diabetes in youth case-control study.

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Abstract

OBJECTIVE: To evaluate the hypothesis that breast-feeding is associated with reduced type 2 diabetes among African-American, Hispanic, and non-Hispanic white youth, mediated in part by current weight status.

RESEARCH DESIGN AND METHODS: The SEARCH Case-Control Study, an ancillary study to SEARCH for Diabetes in Youth, was conducted in two of six SEARCH clinical sites. Eighty youth with type 2 diabetes aged 10-21 years were included. Nondiabetic control participants were recruited from primary care provider offices (n = 167). Breast-feeding information was recalled by biological mothers.

RESULTS: Prevalence (%) of breast-feeding (any duration) was lower among youth with type 2 diabetes than among control subjects (19.5 vs. 27.1 for African Americans, 50.0 vs. 83.8 for Hispanics, and 39.1 vs. 77.6 for non-Hispanic whites). The overall crude odds ratio for the association of breast-feeding (ever versus never) and type 2 diabetes was 0.26 (95% CI 0.15-0.46). Results were similar by race/ethnic group (P value for interaction = 0.17). The odds ratio for the association after adjusting for 12 potential confounders was 0.43 (0.19-0.99). When current BMI z-score was added to the model, the odds ratio was attenuated (0.82 [0.30-2.30]), suggesting possible mediation through current childhood weight status. Analyses that incorporated duration of breast-feeding, adjusted for potential confounders, provided evidence for dose response (test for trend, P value <0.0001), even after inclusion of BMI z-score.

CONCLUSIONS: Breast-feeding appears to be protective against development of type 2 diabetes in youth, mediated in part by current weight status in childhood.

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J Health Care Poor Underserved. 2010 Feb;21(1 Suppl):71-94.

Psychosocial determinants of mammography follow-up after receipt of abnormal mammography results in medically underserved women.

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Abstract

This article targets the relationship between psychosocial determinants and abnormal screening mammography follow-up in a medically underserved population. Health belief scales were modified to refer to diagnostic follow-up versus annual screening. A retrospective cohort study design was used. Statistical analyses were performed examining relationships among sociodemographic factors, psychosocial determinants, and abnormal mammography follow-up. Women with lower mean internal health locus of control scores (3.14) were two times more likely than women with higher mean internal health locus of control scores (3.98) to have inadequate follow-up (OR=2.53, 95% CI=1.12-5.36). Women with less than a high school education had lower cancer fatalism scores than women who had completed high school (47.5 vs. 55.2, p-value=.02) and lower mean external health locus of control scores (3.0 vs. 5.3) (p-value<.01). These constructs have implications for understanding mammography follow-up among minority and medically underserved women. Further comprehensive study of these concepts is warranted.

PMID: 20173286 [PubMed - indexed for MEDLINE] PMCID: PMC2927817 Free PMC Article

Ophthalmology. 2010 Feb;117(2):199-206.e1. Epub 2009 Dec 23.

Central and peripheral visual impairment and the risk of falls and falls with injury.

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Abstract

OBJECTIVE: To evaluate whether central (CVI) and peripheral visual impairment (PVI) are independent risk factors for falls and falls with injury 4 years later.

DESIGN: Population-based, prospective cohort study.

PARTICIPANTS: A population-based sample of 3203 adult Latinos.

METHODS: Baseline presenting binocular central distance acuity was measured and impairment was classified as mild (20/40-20/63) or moderate/severe (<or=20/80). Peripheral visual impairment was classified as mild (-6 dB < mean deviation < -2 dB in worse eye), moderate/severe (mean deviation <or=-6 dB in worse eye).

MAIN OUTCOME MEASURES: Falls and falls with injury in the past 12 months were assessed by self-report at the 4-year follow-up visit.

RESULTS: Out of 3203 individuals, 19% reported falls and 10% falls with injury 4 years after the baseline examination; participants with falls were more likely to be >or=60 years of age, be female, report lower income, have >2 comorbidities, report alcohol use, report wearing bifocal glasses, and report obesity. Among those who reported falls, 7% had CVI (visual acuity >20/40) compared with 4% who did not report falls; and 49% had PVI (mean deviation < -2 dB) compared with 39% of those who did not report falls (both P<0.0001). After adjusting for confounders, moderate to severe CVI and PVI were associated with increased risk for falls (odds ratio [OR], 2.36; 95% confidence interval [CI], 1.02-5.45; P(trend) = 0.04; and OR, 1.42; 95% CI, 1.06-1.91l P(trend) = 0.01, respectively) and with falls with injury (OR, 2.76; 95% CI, 1.10-7.02; P(value) = 0.03; and OR, 1.40; 95% CI, 0.94-2.05 P(trend) = 0.04, respectively).

CONCLUSIONS: Both CVI and PVI were independently associated with increased risk for falls and falls with injury 4 years after the initial examination in a dose-response manner. Although vision-related interventions for preventing falls have mainly focused on correcting CVI, this study suggests that targeting both central and peripheral components may be necessary to effectively reduce rates of falls and falls with injury related to vision loss.

PMID: 20031225 [PubMed - indexed for MEDLINE] PMCID: PMC2819614 Free PMC Article

J Cardiovasc Nurs. 2009 Jan-Feb;24(1):21-8; quiz 29-30.

Predictors of implantable cardioverter defibrillator shocks during the first year.

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Abstract

The purpose of this study was to predict implantable cardioverter defibrillator (ICD) shocks using demographic and clinical characteristics in the first year after implantation for secondary prevention of cardiac arrest. A prospective design was used to follow 168 first-time ICD recipients over 12 months. Demographic and clinical data were obtained from medical records at the time of ICD insertion. Implantable cardioverter defibrillator shock data were obtained from ICD interrogation reports at hospital discharge, 3, 6, and 12 months. Logistic regression was used to predict ever receiving an ICD shock using background characteristics. Patients received an ICD for secondary prevention of sudden cardiac arrest, they were 64.1 years old, 89% were white, 77% were male, with a mean (SD) ejection fraction of 33.7% (14.1%). The cumulative percentage of ever receiving an ICD shock was 33.3% over 1 year. Three variables predicted shocks in the first year: history of chronic obstructive pulmonary disease (COPD) (odds ratio [OR], 4.42; 95% confidence interval [CI], 1.2-16.4; P = .03), history of congestive heart failure (OR, 3.55; 95% CI, 1.4-9.3; P = .01), and documented ventricular tachycardia (VT) at the time of ICD implant (OR, 10.05; 95% CI, 1.8-55.4; P = .01). High levels of anxiety approached significance (OR = 2.82; P = .09). The presence of COPD, congestive heart failure, or VT at ICD implant was a significant predictor of receiving an ICD shock in the first year after ICD implantation. Because ICD shocks are distressing, painful, and associated with greater mortality, healthcare providers should focus attention on prevention of shocks by controlling VT, careful management of HF symptoms, reduction of the use of short acting beta agonist medications in COPD, and perhaps recognizing and treating high levels of anxiety.

PMID: 19114797 [PubMed - indexed for MEDLINE] PMCID: PMC2673010 Free PMC Article

Crit Care. 2011;15(3):R123. Epub 2011 May 11.

Treatment effects of recombinant human soluble thrombomodulin in patients with severe sepsis: a historical control study.

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Abstract

INTRODUCTION: Cross-talk between the coagulation system and inflammatory reactions during sepsis causes organ damage followed by multiple organ dysfunction syndrome or even death. Therefore, anticoagulant therapies have been expected to be beneficial in the treatment of severe sepsis. Recombinant human soluble thrombomodulin (rhTM) binds to thrombin to inactivate coagulation, and the thrombin-rhTM complex activates protein C to produce activated protein C. The purpose of this study was to examine the efficacy of rhTM for treating patients with sepsis-induced disseminated intravascular coagulation (DIC).

METHODS: This study comprised 65 patients with sepsis-induced DIC who required ventilatory management. All patients fulfilled the criteria of severe sepsis and the International Society on Thrombosis and Haemostasis criteria for overt DIC. The initial 45 patients were treated without rhTM (control group), and the following 20 consecutive patients were treated with rhTM (0.06 mg/kg/day) for six days (rhTM group). The primary outcome measure was 28-day mortality. Stepwise multivariate Cox regression analysis was used to assess which independent variables were associated with mortality. Comparisons of Sequential Organ Failure Assessment (SOFA) score on sequential days between the two groups were analyzed by repeated measures analysis of variance.

RESULTS: Cox regression analysis showed 28-day mortality to be significantly lower in the rhTM group than in the control group (adjusted hazard ratio, 0.303; 95% confidence interval, 0.106 to 0.871; P = 0.027). SOFA score in the rhTM group decreased significantly in comparison with that in the control group (P = 0.028). In the post hoc test, SOFA score decreased rapidly in the rhTM group compared with that in the control group on day 1 (P < 0.05).

CONCLUSIONS: We found that rhTM administration may improve organ dysfunction in patients with sepsis-induced DIC. Further clinical investigations are necessary to evaluate the effect of rhTM on the pathophysiology of sepsis-induced DIC.

PMID: 21569368 [PubMed - indexed for MEDLINE] PMCID: PMC3218981 Free PMC Article

Chest. 1994 Jan;105(1):76-82.

Early sepsis treatment with immunoglobulins after cardiac surgery in score-identified high-risk patients.

Pilz G, Kreuzer E, Kääb S, Appel R, Werdan K.

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Erratum in
Chest 1994 Jun;105(6):1924.

Abstract

In patients at risk for sepsis after cardiac surgery, the efficacy of intravenous immunoglobulin (Ig) treatment was compared with a historical control population, equivalent in patient characteristics and disease severity. Using APACHE II scores, especially in the high-risk group (IgG), we could discriminate between low-risk patients (score < 19; mortality 1 percent) and the small groups at risk (score 19 to 23) and high risk (score > or = 24) with a significantly higher mortality (14 percent and 76 percent, respectively) [corrected]. Subsequently, among 1,341 consecutive patients we prospectively identified and treated (IgG n = 41 IgGMA: n = 25) these at-risk groups. In contrast to controls (risk: n = 21; high-risk; n = 21), we found a marked fall in APACHE II scores, especially in the high-risk group (IgG, n = 26: $p < 0.05$; IgGMA, n = 13: $p = 0.08$) [corrected]. In this group, Ig therapy produced higher ($p < 0.05$) response rates (score decrease 7 within 4 days: IgG: 54 percent, IgGMA: 62 percent; controls: 19 percent) and reduced mortality (IgG: 46 percent, IgGMA: 46 percent; controls: 76 percent), statistically significant ($p < 0.05$) for Ig treatment overall. Thus, early Ig treatment improves disease severity and may improve prognosis in prospectively score-identified high-risk postcardiac surgical patients.

PMID: 8275790 [PubMed - indexed for MEDLINE] Free full text

⊕ **Publication Types, MeSH Terms, Substances**

⊕ **LinkOut - more resources**

Pediatrics. 2011 May;127(5):e1112-9. Epub 2011 Apr 18.

Computerized physician order entry with decision support decreases blood transfusions in children.

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Abstract

OBJECTIVE: Timely provision of evidence-based recommendations through computerized physician order entry with clinical decision support may improve use of red blood cell transfusions (RBCTs).

METHODS: We performed a cohort study with historical controls including inpatients admitted between February 1, 2008, and January 31, 2010. A clinical decision-support alert for RBCTs was constructed by using current evidence. RBCT orders resulted in assessment of the patient's medical record with prescriber notification if parameters were not within recommended ranges. Primary end points included the average pretransfusion hemoglobin level and the rate of RBCTs per patient-day.

RESULTS: In total, 3293 control discharges and 3492 study discharges were evaluated. The mean (SD) control pretransfusion hemoglobin level in the PICU was 9.83 (2.63) g/dL (95% confidence interval [CI]: 9.65-10.01) compared with the study value of 8.75 (2.05) g/dL (95% CI: 8.59-8.90) (P < .0001). The wards' control value was 7.56 (0.93) g/dL (95% CI: 7.47-7.65), the study value was 7.14 (1.01) g/dL (95% CI: 6.99-7.28) (P < .0001). The control PICU rate of RBCTs per patient-day was 0.20 (0.11) (95% CI: 0.13-0.27), the study rate was 0.14 (0.04) (95% CI: 0.11-0.17) (P = .12). The PICU's control rate was 0.033 (0.01) (95% CI: 0.02-0.04), and the study rate was 0.017 (0.007) (95% CI: 0.01-0.02) (P < .0001). There was no difference in mortality rates across all cohorts.

CONCLUSIONS: Implementation of clinical decision-support alerts was associated with a decrease in RBCTs, which suggests improved adoption of evidence-based recommendations. This strategy might be widely applied to promote timely adoption of scientific evidence.

PMID: 21502229 [PubMed - indexed for MEDLINE] Free full text