Abstract PS1-51

The Risk of Serious Hypersensitivity Reactions Among Patients With Food Allergies

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Background/Aims: Using Kaiser Permanente Northwest's electronic medical record and linked databases, we sought to estimate the incidence of serious hypersensitivity reactions among a community-based cohort of patients with clinically confirmed food allergies. **Methods:** We conducted a retrospective, dynamic cohort study, which enrolled patients as early as January 2000 and as late as December 2004. We followed patients 6 to 75 years old until they experienced their first serious hypersensitivity reaction requiring medical assistance: urgent care visit, emergency department visit, or hospitalization. Patients' food allergies-peanut, tree nut, fish, shellfish, egg, and milk-were confirmed through radioallergosorbent test (RAST) food panel findings or skin prick test findings and an allergy diagnosis documented in the notes of their electronic medical record. **Results:** We identified 97 patients with a clinically confirmed food allergy who experienced 5 hypersensitivity reactions. The 1-year cumulative incidence was 4.3% (95% CI, 1.6% to 11.0%). All the reactions were emergency department visits. **Conclusions:** The electronic medical record can be used to identify efficiently those patients with clinically confirmed food allergies. Our incidence estimate is imprecise, in part, because so few patients had undergone recent RAST or skin prick testing and very few of them met allergists' strict criteria for a clinically confirmed allergy.

Abstract PS1-52

Reasons for Diabetes Clinical Inertia in Primary Care Practice

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Background: Previous studies suggest clinical inertia, defined as lack of treatment intensification in a patient not at goal, is largely responsible for the slow improvement seen in population measures of diabetes care. It is controversial how much of the inertia problem is attributable to providers, care systems, or patient preference. **Methods:** An electronic visit-based decision support tool called Diabetes Wizard was successfully implemented in 6 HealthPartners Clinics from 10/06 through 5/07 as part of the NIDDK funded study entitled 'Reducing Clinical Inertia in Diabetes Care' (DK068314). The Wizard gave relevant clinical information and specific recommendations for treatment intensification for glycemia, blood pressure, and lipids. In addition, 19 consented physicians in the clinics agreed to complete an electronic visit action resolution (VAR) form at each encounter if the patient was not at goal for glycemia, blood pressure, or lipids and treatment was not intensified. The VAR was completed by checking from a list of possible reasons or through free text. **Results:** Out of 1639 encounters with patients not achieving A1C <7%, the WIZARD was used and VAR completed 831 times (51%). Inertia occurred in 258 (43%) of the VAR completed visits. Reasons that were specified by physicians for glycemia inertia were: (1) choice of patient not to increase or add medications, 70 (19.6%), (2) need for an updated A1c, 62 (17.3%), (3) followed by endocrinology or diabetes nurse, 53 (14.8%), (4) addressed dietary/lifestyle changes instead, 45 (12.6%), (5) other problem/acute illness addressed, 17 (4.7%), (6) not my patient, 13 (3.6%), (7) addressed adherence problem, 13 (3.6%). Other reasons that were sited less frequently (<2.5%) were medication regimen already too complex, hypoglycemia concerns, drug intolerance, cost concerns, advanced age or severe comorbidities, referred to endocrinology or diabetes educator, close to goal, and other miscellaneous reasons. **Conclusions:** Only a relatively small amount, <20%, of total glycemia inertia at diabetes patient encounters is attributable to patient refusal or preference. The remaining reasons could potentially be addressed through care system changes, including point of care testing to assure up-to-date A1C test results are available at visits, provider training, and better coordination of care with the extended care team and primary provider colleagues.

Abstract PS1-54

The Effect of Simvastatin on Surrogate Markers of Vascular Health in Youth

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Background: Failure to diagnose preclinical cardiovascular disease in youth misses a major opportunity to prevent the long-term consequences of this disease. We have conducted a pilot study to evaluate surrogate vascular markers (SVMs) that are associated with early arterial injury including flow-mediated vasodilatation, carotid intima media thickness (IMT), arterial stiffness, and biomarkers including cell adhesion molecules (ICAM-1, VCAM-1), methylarginines (asymmetric dimethylarginine [ADMA], symmetric dimethylarginine [SDMA]), and C-reactive protein (C-RP). We hypothesized that one or more of these SVMs which are linked to early pathological vascular changes will identify high-risk youth with early vascular injury compared to a healthy group and that these markers will tend to normalize with risk factor reduction. We further hypothesized that one or more of the markers will correlate with the Pathological Determinants of Atherosclerosis in Youth (PDAY) risk score. **Methods:** Ten subjects without any known risk factors and 22 hypercholesterolemic (HC) youth, aged 10-20 years were recruited from the pediatric clinic. The majority of the HC group was also obese. The HC group was randomized to diet + 20 mg of simvastatin vs. placebo for 24 weeks followed by a forced titration to 40 mg vs. placebo for 24 weeks ending with a final evaluation after a 12 week washout period of diet alone. **Results:** The markers that best distinguished the HC from the control subjects were C-RP (P=0.03), VCAM-1 (P=0.05) and SDMA (P=0.04). With the exception of ICAM-1 and C-RP, the marker values improved in the treatment group more than the placebo group and the relative changes were the largest for the methylarginines, a marker closely tied to insulin resistance. The markers that demonstrated the highest correlation with the number of risk factors were VCAM-1 (r=0.45, P=0.055) and SDMA (r=0.48, P=0.04). PDAY risk scores were calculated for each subject and SDMA (r=0.50, P=0.03) and Arg/SDMA (r=-0.50, P=0.04) again emerged as the most highly correlated SVMs. Consistent with the relatively low PDAY risk scores and a minimally thickened IMT, the data suggest that the majority of subjects do not have advanced atherosclerotic changes. We conclude that SVMs are a useful index of vascular injury in high-risk youth.

Abstract PS2-01

The Effectiveness of a Screening Program for the Identification of Asymptomatic Women at Risk for Cardiovascular Disease

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Background: Women with peripheral vascular disease (PVD) remain under-diagnosed and under-treated due to lack of screening coupled with a lack of disease awareness. As the presence of PVD may be indicative of asymptomatic or subclinical cardiovascular (CV) disease, it is important to possess knowledge of risk factors and symptoms that may be associated with PVD so that appropriate medical care for systemic atherosclerosis is instituted. We screened ambulatory women for PVD and measured their knowledge and awareness of PVD and associated risk factors. **Methods:** In a cross-sectional study, we screened 162 ambulatory women (40-85 years) for the prevalence of PVD and associated atherosclerotic risk factors, and administered a survey to assess the participants' knowledge and awareness of PVD, its consequences, and their personally perceived risk of developing PVD. The electronic medical record was reviewed for documented evidence of CV risk factors, comorbidities, and corresponding treatment. Of the total cohort, 108 (66.7%) were categorized as having an increased risk of CV disease based on a modification of the Framingham CV risk score taking into account the presence of carotid intimal medial thickness (cIMT) >1.0 mm or ankle-brachial index (ABI) = 0.9 as surrogate markers for CV disease. **Results:** In the subgroup of 108 at-risk women, the number of risk factors present ranged from 2 to 7. Approximately 26% had 2 documented CV risk factors (classified moderate-risk), and 74% had >2 documented CV risk