OAKWOOD HEALTHCARE PUBLICATIONS - 2012

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OBJECTIVE: In type 2 diabetes mellitus (T2DM), it remains unclear whether coronary artery calcium (CAC) provides additional information about cardiovascular disease (CVD) mortality beyond the Framingham Risk Score (FRS) factors.

RESEARCH DESIGN AND METHODS: A total of 1,123 T2DM participants, ages 34-86 years, in the Diabetes Heart Study followed up for an average of 7.4 years were separated using baseline computed tomography scans of CAC (0-9, 10-99, 100-299, 300-999, and >/=1,000). Logistic regression was performed to examine the association between CAC and CVD mortality adjusting for FRS. Areas under the curve (AUC) with and without CAC were compared. Net reclassification improvement (NRI) compared FRS (model 1) versus FRS+CAC (model 2) using 7.4-year CVD mortality risk categories 0% to <7%, 7% to <20%, and >/=20%. RESULTS: Overall, 8% of participants died of cardiovascular causes during follow-up. In multivariate analysis, the odds ratios (95% CI) for CVD mortality using CAC 0-9 as the reference group were, CAC 10-99: 2.93 (0.74-19.55); CAC 100-299: 3.17 (0.70-22.22); CAC 300-999: 4.41(1.15-29.00); and CAC >/=1,000: 11.23 (3.24-71.00). AUC (95% CI) without CAC was 0.70 (0.67-0.73), AUC with CAC was 0.75 (0.72-0.78), and NRI was 0.13 (0.07-0.19). CONCLUSIONS: In T2DM, CAC predicts CVD mortality and meaningfully reclassifies participants, suggesting clinical utility as a risk stratification tool in a population already at increased CVD risk.


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Background. The NCEP metabolic syndrome (MetS) is a combination of dichotomized interrelated risk factors from predominantly Caucasian populations. We propose a continuous MetS score based on principal component analysis (PCA) of the same risk factors in a multiethnic cohort and compare prediction of incident CVD events with NCEP MetS definition. Additionally, we replicated these analyses in the Health, Aging and Body Composition (Health ABC) study cohort. Methods and Results. We performed PCA of the MetS elements (waist circumference, HDL, TG, fasting blood glucose, SBP, and DBP) in 2610 Caucasian Americans, 801 Chinese Americans, 1875 African Americans, and 1494 Hispanic Americans in the multiethnic study of atherosclerosis (MESA) cohort. We selected the first principal component as a continuous MetS score (MetS-PC). Cox proportional hazards models were used to examine the association between MetS-PC and 5.5 years of CVD events (n = 377) adjusting for age, gender, race, smoking and LDL-C, overall and by ethnicity. To facilitate comparison of MetS-PC with the binary NCEP definition, a MetS-PC cut point was chosen to yield the same 37% prevalence of MetS as the NCEP definition (37%) in the MESA cohort. Hazard ratio (HR) for CVD events were estimated using the NCEP and MetS-PC-derived binary definitions. In Cox proportional models, the HR (95% CI) for CVD events for 1-SD (standard deviation) of MetS-PC was 1.71 (1.54-1.90) (P < 0.0001) overall after adjusting for potential confounders, and for each ethnicity, HRs were: Caucasian, 1.64 (1.39-1.94), Chinese, 1.39 (1.06-1.83), African, 1.67 (1.37-2.02), and Hispanic, 2.10 (1.66-2.65). Finally, when binary definitions were
compared, HR for CVD events was 2.34 (1.91-2.87) for MetS-PC versus 1.79 (1.46-2.20) for NCEP MetS. In the Health ABC cohort, in a fully adjusted model, MetS-PC per 1-SD (Health ABC) remained associated with CVD events (HR = 1.21, 95%CI 1.12-1.32) overall, and for each ethnicity, Caucasian (HR = 1.24, 95%CI 1.12-1.39) and African Americans (HR = 1.16, 95%CI 1.01-1.32). Finally, when using a binary definition of MetS-PC (cut point 0.505) designed to match the NCEP definition in terms of prevalence in the Health ABC cohort (35%), the fully adjusted HR for CVD events was 1.39, 95%CI 1.17-1.64 compared with 1.46, 95%CI 1.23-1.72 using the NCEP definition. Conclusion. MetS-PC is a continuous measure of metabolic syndrome and was a better predictor of CVD events overall and in individual ethnicities. Additionally, a binary MetS-PC definition was better than the NCEP MetS definition in predicting incident CVD events in the MESA cohort, but this superiority was not evident in the Health ABC cohort.


A case of tooth aspiration in a 6 year old boy with Goldenhar syndrome and known difficult intubation is presented. A fresh trachcostomy was performed after a failed fiberoptic intubation and dental aspiration. The patient was transferred to our tertiary-care children's hospital for emergency bronchoscopy through the fresh tracheostomy for removal of an aspirated tooth. Rigid bronchoscopy performed via a fresh tracheostomy presents several challenges. The major complications associated with bronchoscopy performed via a fresh tracheostomy, as well as management of airway emergencies are discussed.


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Increasingly, spasticity is managed with surgically implanted Intrathecal Baclofen pumps. Intrathecal Baclofen pump revision surgery unrelated to programmable pump end-of-life is not uncommon, requiring special attention during pre-, intra-, and postoperative management. We aimed to identify and describe complications of Intrathecal Baclofen pump as well as to report avoidance and management of complications. Methods and Materials. Through 2002-2006, at the department of neurosurgery, Henry Ford and Oakwood Health Systems, Intrathecal Baclofen pumps were implanted in 44 patients: 24 children versus 20 adults; 30 “primary implant-patients”; 14 "revision-only patients". We evaluated reasons for revision surgeries and diagnostic workup requirements. Results. Eight primary-implant-patients required 14 revisions and 7 of revision-only patients needed 13 procedures. Seven patients with slowly increasing baclofen-resistant spasticity had either (i) unsuspected pump-catheter connector defects, (ii) an X-ray-documented pump-catheter connector defect, (iii) X-ray-demonstrated fractured catheter with intrathecal fragment. Implant infections occurred in 4 cases. Scintigraphy revealed occult CSF leakage N=1 and intrinsic pump failure N=1. Conclusion. Intrathecal Baclofen pumps, although very gratifying, have a high, technique-related complication incidence during implant life. Meticulous technique, high clinical suspicion, appropriate workup, and timely surgical management can reduce surgical complications of Intrathecal Baclofen pump implantation.


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Background Takotsubo cardiomyopathy is characterized by acute, reversible left ventricular apical ballooning. Little is known about the characteristics of patients with takotsubo cardiomyopathy who have in-hospital mortality. We sought to determine in-hospital mortality rate, complication rate, and characteristics of patients with in-hospital mortality related to takotsubo cardiomyopathy. Methods Patients diagnosed with takotsubo cardiomyopathy in the National Inpatient Database Samples 2008 to 2009 using International Classification of Diseases, Ninth Revision, code 42983 were included in this study. Our primary outcome was in-hospital mortality. In patients with takotsubo cardiomyopathy, we assessed demographic factors, the prevalence and associated mortality of underlying critical illnesses (acute ischemic stroke, sepsis, acute renal failure, respiratory insufficiency, and noncardiac surgery), and acute complications (acute congestive heart failure, respiratory insufficiency with congestive heart failure, cardiogenic shock, ventricular fibrillation/cardiac arrest, and intraaortic balloon pump placement). Results A total of 24,701 patients with takotsubo cardiomyopathy were identified. In-hospital mortality rate was 4.2%. A total of 21,994 patients (89.0%) were female. Male patients had a higher mortality rate than females (8.4% vs 3.6%, P < .0001). Age and race were not associated with mortality. Of patients with in-hospital mortality, 81.4% had underlying critical illnesses. Male patients with takotsubo had higher incidence of underlying critical illnesses than their female counterparts (36.6% vs 26.8%, P < .0001). Conclusions The presence of underlying critical illness was the main driver of mortality, as these patients comprised >80% of patients with in-hospital mortality. Male patients, who were significantly more likely to have underlying critical illness, had significantly higher mortality rates than female patients. The presence of underlying critical illness likely explains the higher mortality rate among male patients.


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Study Objectives: To estimate the incidence of amenorrhea at 36 months after treatment using a third-generation thermal uterine balloon therapy (UBT) system and to compare it with the first-generation UBT system. The secondary objective was to estimate the effect of post-procedure curettage on patient outcomes at 36 months after endometrial ablation. Design: Multicenter controlled study (Canadian Task Force classification I). Setting: Thirteen hospitals: 12 in the United States and 1 in Mexico. Patients: Two-hundred fifty premenopausal women aged at least 30 years with heavy menstrual bleeding not responsive to previous medical therapy for at least 3 months. Intervention: After treatment with a third-generation thermal UBT system, patients were randomly assigned to receive post-procedure curettage (PPC) or no PPC. Measurements and Main Results: Amenorrhea was estimated at 12 months using individual success defined by a pictorial blood loss assessment chart score of 0, and at 24- and 36-month follow-up by patient response of amenorrhea on a 5-point scale (amenorrhea, spotting, and light, normal, or excessive bleeding). In the intention-to-treat population, at 36 months after ablation, the amenorrhea rate was 26.8% with the third-generation UBT system, and 13.0% with the first-generation UBT system. Results by assigned intervention were 29.8% in the no PPC group vs 23.8% in the PPC group. Conclusion: At extended 36-month follow-up, results were similar to the previously reported results at 1 year using prospectively defined matched-pair analysis, and demonstrated superiority in treating amenorrhea using the third-generation UBT system vs the first-generation UBT system. Journal of Minimally Invasive Gynecology (2012) 19, 469-476 (C) 2012 AAGL. All rights reserved.


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The Akin osteotomy is performed at the proximal phalanx for correction of an abduced great toe in a hallux abducto valgus deformity. Several internal fixation techniques have been widely advocated; however, their respective stabilities have not been compared. A biomechanical analysis was performed comparing 5 commonly used fixation techniques for the Akin osteotomy to determine the strongest method in simulated weightbearing in sawbone models. An Akin osteotomy was uniformly performed on 25 sawbones and fixed with 5 different internal fixation types, including a 2-hole locking plate and locking screws, a heat-sensitive memory staple (8 mm x 8 mm), a 28-gauge monofilament wire, 2.7-mm bicortical screws, and crossed 0.062-in. Kirschner wires. The results of simulated weightbearing load to failure rates with an Instron compression device demonstrated the following mean load to failures: crossed Kirschner wire, 57.05 N; 2-hole locking plate, 36.49 N; monofilament wire, 35.69 N; heat-sensitive memory staple, 34.32 N; and 2.7-mm bicortical screw, 13.66 N. Statistical analysis demonstrated the crossed Kirschner wire technique performed significantly better than the other fixation techniques (p < .007); the 4 other techniques were found not to be significantly different statistically (p = .041) from each another. Our study results suggest a crossing Kirschner wire construct significantly increases the stability of the Akin osteotomy in a sawbone model. This might be clinically extrapolated in an effort to improve patient outcomes because these osteotomies can undergo nonunion and malunion, resulting in postoperative pain and swelling. (C) 2012 by the American College of Foot and Ankle Surgeons. All rights reserved.


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Diabet. Med. 29, 767770 (2012) Abstract Aims Although current American Heart Association guidelines address C-reactive protein concentration and cardiovascular disease risk, it remains unclear whether this paradigm is consistent across populations with differing disease burdens. Individuals with Type 2 diabetes mellitus represent one group at increased risk of cardiovascular disease and subsequent mortality. This study aimed to examine the relationship between C-reactive protein concentrations and risk for all-cause mortality in European Americans with Type 2 diabetes from the Diabetes Heart Study. Methods A total of 846 European Americans with Type 2 diabetes and baseline measures of C-reactive protein were evaluated. Vital status was determined after a follow-up period of 7.3 +/- 2.1 years (mean +/- SD). C-reactive protein concentrations were compared between living and deceased subgroups along with other known risk factors for cardiovascular disease, including blood lipids. Logistic regression was performed to determine risk for mortality associated with increasing C-reactive protein concentrations. Results At follow-up 160 individuals (18.7%) were deceased. No significant differences in baseline serum glucose or lipid
measures were observed between living and deceased subgroups. Baseline C-reactive protein concentrations were significantly higher in the deceased subgroup (9.37 +/- 15.94) compared with the living subgroup (5.36 +/- 7.91 mg/l; P < 0.0001). Participants with C-reactive protein concentrations of 310 mg/l were approximately two times more likely to be deceased at follow-up (OR 2.06; 95% CI 1.173.62); those with C-reactive protein >10 mg/l were more than five times more likely to be deceased (OR 5.24; CI 2.809.38). Conclusions This study documents the utility of C-reactive protein in predicting risk for all-cause mortality in European Americans with Type 2 diabetes and supports its use as a screening tool in risk prediction models.


Observing licensed independent practitioners mark surgical sites with all types of marking pens is a concern related to the potential spread of infections from patient to patient. The practice of using the same marking pen to mark a surgical site has been questioned as a source of cross contamination. A literature review was done on recent studies and best practice recommendations to determine whether marking pens can act as fomites for nosocomial infections. The review indicated that surgical site markers, ink pens, and aging permanent marking pens can be a source for cross-infection with methicillin-resistant Staphylococcus aureus, other bacteria, fungus, or virus. The type of marking pens used and the act of using the same marking pen from patient to patient could contribute to nosocomial infections. The literature reviewed recommends a single time use of a surgical marking pen. Interventions to prevent cross contamination and postoperative surgical site infections are a major concern in the care of the orthopaedic patient.


Little is known about the epidemiology of stress (takotsubo) cardiomyopathy (SC). We used a 3-arm case-control study to assess differences in demographic and co-morbid predictors of SC compared to orthopedic controls and myocardial infarction (MI) controls to characterize (1) population-level predictors of SC generally and (2) differences and similarities in determinants of SC compared to MI. We included data on all discharges of patients diagnosed with SC from the 2008 to 2009 National Inpatient Samples and randomly selected 1-to-1 age-matched controls from patients hospitalized with MI and patients hospitalized with joint injuries after trauma. We used McNemar tests to assess differences in demographic characteristics and co-morbidities between patients with SC and controls. There were 24,701 patients with SC in our study. Of patients with SC, 89.0% were women compared to 38.9% of patients with MI and 55.7% of orthopedic controls. Patients with SC were more likely to be white and to reside in wealthier ZIP codes compared to MI and orthopedic controls. Patients with SC were less likely to have cardiovascular risk factors compared to MI and orthopedic controls but were more likely to have had histories of cerebrovascular accidents, drug abuse, anxiety disorders, mood disorders, malignancy, chronic liver disease, and sepsis. In conclusion, demographic and co-morbid predictors of SC differ substantially from those of MI and may be of interest to providers when diagnosing SC. Several co-morbid risk factors predictive of SC may operate by increased catecholamines. (C) 2012 Elsevier Inc. All rights reserved. (Am J Cardiol 2012;110:1368-1372)


Background—Despite several advances in postresuscitation care over the past decade, population-based mortality rates for patients hospitalized with cardiac arrest in the United States have not been studied over this time period. The aim of this study was to determine the annual in-hospital mortality rates of patients with cardiac arrest from 2001 to 2009. Methods and Results—The US mortality rates for hospitalized patients with cardiac arrest were determined using the 2001 to 2009 US National Inpatient Sample, a national hospital discharge database. Using the International Classification of Diseases, 9th Edition, code 427.5, we identified patients hospitalized in the United States with cardiac arrest from 2001 to 2009. The main outcome measure was in-hospital mortality. A total of 1,190,860 patients were hospitalized with a diagnosis of cardiac arrest in the United States from 2001 to 2009. The in-hospital mortality rate decreased each year from 69.6% in 2001 to 57.8% in 2009. In multivariable analysis, when controlling for age, sex, race, and comorbidities, earlier year was a strong independent predictor of in-hospital death. The mortality rate declined across all analyzed subgroups, including sex, age, race, and stratification by comorbidity. Conclusions—The in-hospital mortality rate of patients hospitalized with cardiac arrest in the United States decreased by 11.8% from 2001 to 2009. (Circulation. 2012;126:546–550.)


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Atrial fibrillation is the most common arrhythmia encountered in clinical practice, and it is one of the most common cardiac conditions requiring hospitalization of a patient. Several national organizations have developed guidelines for the management of atrial fibrillation. These guidelines were updated in 2011 to incorporate new advances in antiarrhythmic drug therapy and anticoagulant therapy, as well as progress in the field of catheter ablation. Many decisions about patient care involve consideration of issues related to lifestyle and quality of life rather than survival. These decisions also involve addressing the key topics of heart rate control, heart rhythm control, and stroke prevention. During the past decade, important advances in the management of atrial fibrillation have created a number of treatment options that have roughly equivalent therapeutic efficacies when they are used for several common clinical situations encountered in clinical practice. The range of available treatments for patients with atrial fibrillation provides an important opportunity for the physician to deliver patient-centered care, which uses patient values to determine the best course of treatment.


It is known that human keratinocytes (KCs) express Toll-like receptors (TLRs). However, published reports conflict regarding TLR expression in cutaneous T-cell lymphoma patient's KCs. To define the pattern of expression and detect any differences of TLRs 1-9 and p65 expression in epidermal KCs, tumor infiltrate, and endothelial cell types using immunohistochemical stains on fixed and paraffin-embedded sections of mycosis fungoides (MF) in patch, plaque, and nodular stages. MF cases showed no change in pattern of TLRs expressed through different stages but increased epidermal staining of TLRs 2, 3, 4, 5, 6, and 8 with higher scores associated with more aggressive stages. Endothelial cell staining was increased for TLR 4 and 6. Tumor infiltrate staining was strongest with TLRs 5 and 7. Individual cases with disease progression showed increased intensity of TLRs 4, 5, and 6 staining in the epidermis, tumor infiltrate, and endothelial cell. p65 verified nuclear factor kappa B activation of the TLR pathway with trace staining of the epidermis and 1-2+ staining of tumor infiltrate. MF cases showed increased epidermal expression of TLRs and increased endothelial cell staining compared with controls. TLR expression may be driven by antigenic stimulation and may play a role in the activation of neoplastic T cells in the skin. Further definition of TLR patterns may refine the use of TLR modifiers for treatment.
Background: Long-term acute care (LTAC) facilities admit patients with complex, advanced disease states. Study aims were to determine the burden posed on hospitals associated with LTAC exposure and analyze the differences between "present on admission" (POA) multidrug-resistant (MDR), gram-negative organisms (GNO) and POA MDR gram-positive organisms (GPO). Methods: A multicenter retrospective study was conducted in 13 hospitals from southeast Michigan, from September 1, 2008, to August 31, 2009. Cultures obtained in the first 72 hours of hospitalization (ie, POA) of MDR-GPO and MDR-GNO were reviewed. LTAC exposures in the previous 6 months and direct admission from a LTAC were recorded. Results: Overall, 5,297 patients with 7,147 MDR POA cultures were analyzed: 2,619 (36.6%) were MDR-GNO, and 4,528 (63.4%) were MDR-GPO. LTAC exposure in the past 6 months was present in 251 (5.2%) infectious episodes and was significantly more common among POA MDR-GNO than MDR-GPO (158 [8.6%] and 94 [3.1%], respectively, odds ratio, 2.87; P < .001). Recent LTAC exposure was strongly associated with both carbapenem-resistant Enterobacteriaceae (CRE) (31.6% of all CRE cases, P < .001) and Acinetobacter baumannii (14.9% of all A. baumannii cases, P < .001). Conclusion: Nearly 10% of MDR-GNO POA had recent LTAC exposure. Hospital efforts to control the spread of MDR-GNO should focus on collaborations and communications with referring LTACs and interventions targeted towards patients with recent LTAC exposure. Copyright (C) 2012 by the Association for Professionals in Infection Control and Epidemiology, Inc. Published by Elsevier Inc. All rights reserved.


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Infections and thromboses are the most common complications associated with central venous catheters. Suggested strategies for prevention and management of these complications include the use of heparin-coated catheters, heparin locks, and antimicrobial lock therapy. However, the effects of heparin on Candida albicans biofilms and...
planktonic cells have not been previously studied. Therefore, we sought to determine the in vitro effect of a heparin sodium preparation (HP) on biofilms and planktonic cells of C. albicans. Because HP contains two preservatives, methyl paraben (MP) and propyl paraben (PP), these compounds and heparin sodium without preservatives (Pure-H) were also tested individually. The metabolic activity of the mature biofilm after treatment was assessed using XTT [2,3-bis-(2-methoxy-4-nitro-5-sulfophenyl)-2H-tetrazolium-5-carboxanilide] reduction and microscopy. Pure-H, MP, and PP caused up to 75, 85, and 60% reductions of metabolic activity of the mature preformed C. albicans biofilms, respectively. Maximal efficacy against the mature biofilm was observed with HP (up to 90%) compared to the individual compounds (P < 0.0001). Pure-H, MP, and PP each inhibited C. albicans biofilm formation up to 90%. A complete inhibition of biofilm formation was observed with HP at 5,000 U/ml and higher. When tested against planktonic cells, each compound inhibited growth in a dose-dependent manner. These data indicated that HP, MP, PP, and Pure-H have in vitro antifungal activity against C. albicans mature biofilms, formation of biofilms, and planktonic cells. Investigation of high-dose heparin-based strategies (e.g., heparin locks) in combination with traditional antifungal agents for the treatment and/or prevention of C. albicans biofilms is warranted.


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Liposomal amphotericin B is a “true” liposomal formulation of amphotericin B with greatly reduced nephrotoxicity and minimal infusion-related toxicity. This broad spectrum polyene is well tolerated and effective against most invasive fungal infections. In view of the current limitations on diagnostic capability of invasive fungal infections, most clinicians are often compelled to use antifungal drugs in an empiric manner; liposomal amphotericin B continues to play an important role in the empiric management of invasive fungal infections, despite the recent availability of several other drugs in the azole and echinocandin classes.


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Central metatarsal malunion is sparsely described in the literature. There are differing opinions on the importance of open reduction and internal fixation for lesser metatarsal fractures and possible complications from lack of appropriate treatment for these common fractures. In general, little emphasis is placed on performing open reduction and internal fixation of displaced central metatarsal fractures. In this report, we describe 2 cases in which displaced lesser metatarsal fractures were not reduced and were treated with only immobilization. Both of the patients presented later with pain and stiffness in the area of the fractures and at the metatarsophalangeal joints. In both cases, treatment consisted of metatarsal osteotomies with realignment and fixation. In each case, this treatment provided relief of pain, increased range of motion, and return to normal activity. In cases of painful metatarsal malunion, restoration of anatomic alignment may be necessary for resolution of pain and disability.


Aspirin has been used for the prevention and treatment of cardiovascular disease (CVD) for several decades. The efficacy of aspirin for secondary prevention of cardiovascular disease is well established, but the clinical benefit of aspirin for primary prevention of CVD is less clear. The primary literature suggests that aspirin may provide a reduction in CVD events, but the absolute benefit is small and accompanied by an increase in bleeding. For aspirin to be beneficial for an individual patient, the risk of a future CVD event must be large enough to outweigh the risk of bleeding. The estimation of CVD risk is multifaceted and can involve numerous risk scores and assessments of concomitant comorbidities that confer additional CVD risk. Numerous guidelines provide recommendations for the use of aspirin for primary prevention, but they often contradict one another despite being based on the same clinical trials. Additional literature suggests that the presence of comorbidities that increase CVD risk, such as diabetes mellitus, asymptomatic peripheral arterial disease, or chronic kidney disease, does not ensure that aspirin therapy will be beneficial. Ongoing clinical trials may provide additional insight, but until more data are available, an individualized assessment of CVD risk with careful evaluation of risk and benefit should be performed before recommending aspirin therapy for primary prevention of CVD.
Background The effects of constant-current deep brain stimulation (DBS) have not been studied in controlled trials in patients with Parkinson’s disease. We aimed to assess the safety and efficacy of bilateral constant-current DBS of the subthalamic nucleus. Methods This prospective, randomised, multicentre controlled trial was done between Sept 26, 2005, and Aug 13, 2010, at 15 clinical sites specialising in movement disorders in the USA. Patients were eligible if they were aged 18-80 years, had Parkinson’s disease for 5 years or more, and had either 6 h or more daily off time reported in a patient diary of moderate to severe dyskinesia during waking hours. The patients received bilateral stimulation in the subthalamic nucleus of a constant-current DBS device. After implantation, computer-generated randomisation was done with a block size of four, and patients were randomly assigned to the stimulation or control group (stimulation:control ratio 3:1). The control group received implantation without activation for 3 months. No blinding occurred during this study, and both patients and investigators were aware of the treatment group. The primary outcome variable was the change in on time without bothersome dyskinesia (ie, good quality on time) at 3 months as recorded in patients’ diaries. Patients were followed up for 1 year. This trial is registered with ClinicalTrials.gov, number NCT00552474. Findings Of 168 patients assessed for eligibility, 136 had implantation of the constant-current device and were randomised to receive immediate (101 patients) or delayed (35 patients) stimulation. Both study groups reported a mean increase of good quality on time after 3 months, and the increase was greater in the stimulation group (4.27 h vs 1.77 h, difference 2.5 h; 95% CI 0.87-4.16; p=0.003). Unified Parkinson’s disease rating scale motor scores in the off-medication, on-stimulation condition improved by 39% from baseline (24.8 vs 40.8). Some serious adverse events occurred after DBS implantation, including infections in five (4%) of 136 patients and intracranial haemorrhage in four (3%) patients. Stimulation of the subthalamic nucleus was associated with dysarthria, fatigue, paraesthesia, and oedema, whereas gait problems, disequilibrium, dyskinesia, and falls were reported in both groups. Interpretation Constant-current DBS of the subthalamic nucleus produced significant improvements in good quality on time when compared with a control group without stimulation. Future trials should compare the effects of constant-current DBS with those of voltage-controlled stimulation.


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Background and objectives Clinical heart failure (HF) is associated with CKD and faster rates of kidney function decline. Whether subclinical abnormalities of cardiac structure are associated with faster kidney function decline is not
Significant improvements in all four domains over 12 weeks were seen with clindamycin phosphate 1.2%/benzoyl peroxide 2.5% aqueous gel compared to patients treated with individual active ingredients or vehicle (p<0.001).

Length and time required for completion of the 19-item Acne Quality of Life questionnaire is likely to preclude its use in clinical practice. A condensed, validated Acne Q-4 scale based on the four items most broadly representative of health-related quality of life was studied has been reported recently. A four-question Approach to Determining the Impact of Acne Treatment on Quality of Life. A condensed, validated Acne Q-4 scale based on the four items most broadly representative of health-related quality of life was studied has been reported recently. A four-question Approach to Determining the Impact of Acne Treatment on Quality of Life. A four-question Approach to Determining the Impact of Acne Treatment on Quality of Life. A four-question Approach to Determining the Impact of Acne Treatment on Quality of Life. A four-question Approach to Determining the Impact of Acne Treatment on Quality of Life.

To compare prevalence and risk factors associated with fear of falling (FoF) in two groups of elderly people, 109 patients with recurrent dizziness and 109 controls without dizziness. FoF was defined as a positive response to the single question and with Falls Efficacy Scale of >50. The prevalence of FoF was greater (71.6%) in the dizzy group (control: 31.2%; p < 0.001). Factors associated with FoF in the dizzy-group were diabetes, high General Health Questionnaire (GHQ-28) score and poor balance score. In the non-dizzy group, female gender, high GHQ and poor gait score in Tinetti’s scale were the association. Further research is needed to explore the relationship between dizziness and FoF.
health-related quality of life combined with a high level of correlation to the Acne Quality of Life questionnaire has been suggested as a more realistic approach that may be applied by clinicians when managing patients with acne vulgaris. The authors present data on the effectiveness of clindamycin phosphate 1.2%/benzoyl peroxide 2.5% aqueous gel on health-related quality of life based on this Acne Q-4 scale.


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Objectives. To compare pharmacy students’ performance on an objective structured clinical examination (OSCE) to their written examination for the assessment of problem-based learning (PBL); and to determine students’ and faculty members’ perceptions of OSCEs for PBL evaluations. Design. Four OSCEs were added to the written examination to assess 4 PBL cases in a third-year pharmacotherapy course. OSCE scores were compared to written examination scores. Faculty members evaluated student performance. Assessment. OSCE performance did not correlate with the written-examination scores. Most students (>= 75%) agreed that OSCEs reflected their learning from PBL and measured knowledge, communication, and clinical skills. A majority of faculty members (> = 75%) agreed that OSCEs should be part of PBL assessment. Conclusions. Addition of an OSCE to written examinations was valued and provided a more comprehensive assessment of the PBL experience.

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The focus for this clinical review is under-prescribing and non-adherence to medication guidelines in older adults after coronary artery bypass grafting (CABG) surgery. Non-adherence occurs in all age groups, but older adults have a unique set of challenges including difficulty hearing, comprehending, and remembering instructions; acquiring and managing multiple medications; and tolerating drug-drug and drug-disease interactions. Still, non-adherence leads to increased morbidity, mortality, and costs to the healthcare system. Factors contributing to non-adherence include failure to initiate therapy before hospital discharge; poor education about the importance of each medication by hospital staff; poor education about medication side effects; polypharmacy; multiple daily dosing; excessive cost; and the physician's lack of knowledge of clinical indicators for use of medications. To improve adherence, healthcare systems must ensure that (i) all patients are prescribed the appropriate medications at discharge; (ii) patients fill and take these medications post-operatively; and (iii) patients continue long-term use of these medications. Interventions must target central administrative policies within healthcare institutions, the difficulties facing providers, as well as the concerns of patients. Corrective efforts need to be started early during the hospitalization and involve practitioners who can follow patients after the date on which surgical care is no longer needed. A solid, ongoing relationship between patients and their primary-care physicians and cardiologists is essential. This review summarizes the post-operative medication guidelines for CABG surgery, describes barriers that limit the adherence to these guidelines, and suggests possible avenues to improve medication adherence in older cardiac surgery patients.

STUDY OBJECTIVE: To determine the impact of sonographically identified large uterine fibroids (>5 cm in diameter) on obstetric outcomes. DESIGN: Retrospective cohort study. SETTING: University teaching hospital. PATIENT(S): Women with singleton gestations (n = 95) noted to have uterine fibroids on obstetric ultrasonography from September 2009 through April 2010 and age-matched controls (n = 95). INTERVENTION(S): None. MAIN OUTCOME MEASURE(S): Obstetric outcomes including short cervix, preterm premature rupture of membranes, and preterm delivery. RESULT(S): Compared to women with no fibroids or small fibroids (≤5 cm), women with large fibroids (>5 cm) delivered at a significantly earlier gestational age (38.6 vs. 38.4 vs. 36.5 weeks). Short cervix, preterm premature rupture of membranes, and preterm delivery were also significantly more frequent in the large fibroid group, and were associated with number of fibroids >5 cm in diameter. Blood loss at delivery was significantly higher in the large fibroid group (486.8 vs. 535.6 vs. 645.1 mL), as was needed for postpartum blood transfusion (1.1 vs. 0.0 vs. 12.2%). CONCLUSION(S): Women with large uterine fibroids in pregnancy are at significantly increased risk for delivery at an earlier gestational age compared to women with small or no fibroids, as well as obstetric complications including excess blood loss and increased frequency of postpartum blood transfusion.
Hypopigmented mycosis fungoides (MF) is a relatively uncommon variant of cutaneous lymphoma that is mostly seen in darker skin types. We present a novel and unique clinical presentation in an African-American female patient, consisting of regular hypopigmented annular rings in areas of normal skin and in more typical hypopigmented patches of MF. The lesions appeared diffusely on all extremities, anterior chest and back. Histopathologic examination showed an atypical lymphocytic infiltrate at the dermal-epidermal junction with epidermotropism and few Pautrier's collections. The patient was otherwise healthy and improved with narrowband ultraviolet (UV)-B. This case represents a presentation of a most unusual variant of hypopigmented MF, for which we propose the name annular hypopigmented MF.
Background Anticholinergic medications and onabotulinumtoxinA are used to treat urgency urinary incontinence, but data directly comparing the two types of therapy are needed. Methods We performed a double-blind, double-placebo-controlled, randomized trial involving women with idiopathic urgency urinary incontinence who had five or more episodes of urgency urinary incontinence per 3-day period, as recorded in a diary. For a 6-month period, participants were randomly assigned to daily oral anticholinergic medication (solifenacin, 5 mg initially, with possible escalation to 10 mg and, if necessary, subsequent switch to trospium XR, 60 mg) plus one intradetrusor injection of saline or one intradetrusor injection of 100 U of onabotulinumtoxinA plus daily oral placebo. The primary outcome was the reduction from baseline in mean episodes of urgency urinary incontinence per day over the 6-month period, as recorded in 3-day diaries submitted monthly. Secondary outcomes included complete resolution of urgency urinary incontinence, quality of life, use of catheters, and adverse events. Results Of 249 women who underwent randomization, 247 were treated, and 241 had data available for the primary outcome analyses. The mean reduction in episodes of urgency urinary incontinence per day over the course of 6 months, from a baseline average of 5.0 per day, was 3.4 in the anticholinergic group and 3.3 in the onabotulinumtoxinA group (P = 0.81). Complete resolution of urgency urinary incontinence was reported by 13% and 27% of the women, respectively (P = 0.003). Quality of life improved in both groups, without significant between-group differences. The anticholinergic group had a higher rate of dry mouth (46% vs. 31%, P = 0.02) but lower rates of catheter use at 2 months (0% vs. 5%, P = 0.01) and urinary tract infections (13% vs. 33%, P<0.001). Conclusions Oral anticholinergic therapy and onabotulinumtoxinA by injection were associated with similar reductions in the frequency of daily episodes of urgency urinary incontinence. The group receiving onabotulinumtoxinA was less likely to have dry mouth and more likely to have complete resolution of urgency urinary incontinence but had higher rates of transient urinary retention and urinary tract infections. (Funded by the Eunice Kennedy Shriver National Institute of Child Health and Human Development and the National Institutes of Health Office of Research on Women's Health; ClinicalTrials.gov number, NCT01166438.)


Cowden syndrome (CS) is a rare autosomal dominant disorder characterized by multisystem hamartomatous growths and carcinomas. CS is linked to germ line mutations in PTEN (phosphatase and tensin homolog) located on chromosome 10q23.3. PTEN acts as a tumor suppressor to negatively control cellular growth and survival via the PI3K/AKT signaling pathway. Presented here are 2 patients with multiple, persistent, and asymptomatic papules on the face and the upper body, histologically consistent with trichilemmomas. Diagnosis of CS was made in each case based on the established diagnostic criteria and confirmed using immunohistochemistry directed against PTEN. We propose that the assessment of PTEN expression levels can aid in the identification of patients with CS.