The incredible rock layers of Zion are part of a system stretching from Bryce Canyon to the Grand Canyon. The monument pictured was taken in Zion National Park in Utah. The monument pictured was formed by millennia of cascading water cutting through and lithified Navajo Sandstone. This photograph was taken by Sally J Cullen, MD, MS in 2012.

**ORIGINAL RESEARCH & CONTRIBUTIONS**

4 Financial Implications of the Continuity of Primary Care. Marcus J Holland, MA, MSc, PhD; Helena Kuller, MA, PhD

Using British Columbia Ministry of Health administrative databases for fiscal years 2010-2011 and an original linear model, cost ratios were estimated for 10 validated predictor variables, including patients’ attachment to the practice. Across all medical conditions, patients’ attachment to the practice had the strongest relationship to costs. Higher attachment was associated with lower costs. Extrapolation of the findings indicated an increase of 5% in overall attachment level for the selected high-need patients and could have resulted in an estimated cost avoidance of $142 million Canadian for fiscal year 2010-2011.

11 Efficacy and Utility of Phone Call Follow-up after Pediatric General Surgery versus Traditional Clinic Follow-up. Kevin Fischer, MSN, APRN; Virginia Hogan, MSN, APRN; Alokia Jager, MSN, APRN; Daniel von Allmen, MD

The authors conducted a retrospective review of the charts of patients in a large academic practice who underwent select surgical procedures and they contacted those patients’ families by telephone 2 weeks after intervention. Six months after implementation, overall postoperative appointments decreased from 55.5% to 35.6%, and 62.6% of patients had a successful postoperative phone call follow-up. A satisfaction survey revealed that 85% of patients were highly satisfied.

15 Elderly Patients with Glaucoma Multiforme Treated with Concurrent Tonometeric and Standard-versus Abbreviated-Course Radiotherapy. Christine N Chang, MD, PhD; Jeon Yeh, MD; Wintemuth W Lee, MD

This study reviewed outcomes from 2003 to 2012 of elderly patients aged 65 with newly diagnosed glaucoma multiforme treated with concurrent tonometry and either standard-course radiotherapy (SRT) or abbreviated-course radiotherapy. Multivariate analysis of the entire cohort found that patients receiving SRT had higher Karnofsky Performance Scores of 70 or higher, and more elderly surgery was associated with longer survival time.

22 Risk Factors for Neck Hematoma after Thyroid or Parathyroid Surgery. Ten-Year Analysis of the Nationwide Inpatient Sample Database. Ahmed Dahal, MD; APHN; Ali Alkas, MPH; APHN; Farhad Housian, MD; Sameer Johna, MD

Postoperative neck hematoma is a well-known complication of thyroid and parathyroid surgery. A retrospective analysis was performed of hospital discharge data from the nationwide inpatient sample databases of 147,344 thyroid and parathyroid operations performed nationwide between 2000 and 2009. Overall incidence of postoperative neck hematoma was 1.5%. In multivariate analysis, age ≥ 65, male sex, African-American race, living from the South, a comorbidity score of ≥ 3, history of alcohol abuse, Glomerular filtration rate and subtotal thyrosectomy were associated with a higher risk of neck hematoma.

31 A Practice-Driven Procedure for the Ambulatory Setting to Assist Patients with Chronic Kidney Disease Counseling Diabulim. Yuan K Lee, MD; XK Chang, MD; CC Pang, PhD; COOs, JF John Suriart, UCL; Pallab Chaudhuri, MD; Karen Feldman, PhD

The authors randomly assigned patients with Stage 4 or 5 chronic kidney disease who had not yet begun renal dialysis to 2 groups. The test group received an additional nephrology consult with an interdisciplinary team and reported help in forming a treatment plan, felt well educated, and had the opportunity to thoroughly discuss questions. They had a decrease in beginning dialysis, clinic visits, hospital admissions, days hospitalized, and emergency room visits.

34 Nasal Methicillin-Resistant Staphylococcus aureus Polyarthritis in a Patient with Chronic Kidney Disease. Jillian L. Wright, PharmD; Lyndsay A Shepherd, PharmD; Jennifer A Johnson, MD; David M Musher, MD; Bich Lam, MD

Polyarthritis was diagnosed in a patient with chronic kidney disease. The organism was sensitive to rifampin, trimethoprim-sulfamethoxazole, and ceftazidime. The patient was treated with 4 weeks of intravenous ceftazidime followed by 6 weeks of oral trimethoprim-sulfamethoxazole. Polyarthritis was resolved with therapy. This case highlights the importance of considering MRSA polyarthritis in patients with CKD.

100 Toubin’s Nodule. Jimaad A Al-Qahtani, MD; Carmen Lara, MD; Praveen Okotie, MD; Nader Zafeeri, MD

Toubin’s nodule is a rare entity that presents as a single or multiple, non-tender, nodules on the soles of the feet. The most common location is on the heel. The nodule is a result of induration of the plantar fascia due to chronic trauma from plantar pressure. The differential diagnosis includes plantar fasciitis, calcaneal spur, Morton’s neuroma, and plantar cyst. The treatment is to avoid excessive plantar pressure and use of a toe spreader to stretch the plantar fascia. Toubin’s nodule was successfully treated in the office with a combination of local anesthetic and 98% ethanol with 4% of carbon dioxide.

320 Critical Care Management of the Patient with Critical Illness. Joseph E Sherger, MD, MPH

Is there such a thing as “too old” to be infected with this organism? Critical Care Management of the Patient with Critical Illness. Joseph E Sherger, MD, MPH

Critical Care Management of the Patient with Critical Illness. Joseph E Sherger, MD, MPH

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NARRATIVE MEDICINE

82 Echocardiogram for Pericardial Effusion. Joseph Gascho, MD
With fluid around the heart, when younger he’d want to know what, now older he does not.

94 No Laughing Matter.
David E Clarke, MD, FCCP
A cough, then breathlessness; laughter then breathlessness. Is the cause the tubes or the gut?

39 Passive Cigarette Smoke Exposure and Other Risk Factors for Invasive Pneumococcal Disease in Children: A Case-Control Study. Colleen S Chun, MD; Sheila Weimann, MPH, PhD; Karen Riedlinger, MT, MPH; John P Mulloly, PhD
In a population-based, case-control study, 171 children, aged 0 to 12 years, with culture-confirmed invasive pneumococcal disease during the years 1994 to 2004 were identified. Two controls were matched to each case. The authors reviewed medical records of subjects and family members for information on household cigarette smoke exposure within 2 years of the diagnosis. Passive cigarette smoke exposure was not associated with invasive pneumococcal disease in this pediatric population.

A retrospective review of the Journal of the American Academy of Dermatology and the Archives of Dermatology was performed using the MEDLINE database for all original research articles published between 1970 and 2010. The frequency of research into acne vulgaris and rosacea decreased from 24% to 5.1%, psoriasis research increased from 17.6% to 26.5% (most likely because of the discovery of biologics), and skin cancer research increased from 4% to 48% (paralleling the increasing incidence of skin cancer).

49 Intervention to Reduce Inappropriate Ionized Calcium Ordering Practices: A Quality-Improvement Project. Darrell B Newman, MD; Konstantinos C Siontis, MD; Krishnaswamy Chandrasekaran, MD; Allan S Jaffe, MD; Deanne T Kashawy, MD
The authors hypothesized that most ionized calcium (iCa) tests are ordered for routine monitoring in asymptomatic patients and results do not influence clinical management. On retrospective review of clinical records they identified the first 100 consecutive patients admitted to the hospital internal medicine (HIM) services during January 2012 with an iCa test ordered during their hospitalization. An educational intervention regarding the appropriateness of iCa testing was undertaken targeting HIM clinicians. They then assessed the first 100 consecutive patients admitted to HIM services during November 2012. HIM services were responsible for 38% of iCa measurements before the educational intervention and 13% after, which represented a 66% reduction.

52 Temporal Comorbidity of Mental Disorder and Ulcerative Colitis. David Cawthorpe, PhD; Marta Davidson, MD
The authors used physician diagnoses from Calgary, Alberta, for patient visits from fiscal years 1994 to 2009 for treatment of any presenting concern (763,449 patients) to identify 5113 patients with a diagnosis of ulcerative colitis, and found 4192 patients also had a diagnosis of a mental disorder. Patients with mental disorder had a significantly higher annual prevalence. The mental disorder grouping neuropsychosis/depression was most likely to arise before diagnosis of ulcerative colitis.

Special Report
58 High Amount of Dietary Fiber Not Harmful But Favorable for Crohn Disease. Mitsuro Chiba, MD, PhD; Tsuyotoshi Tsuji, MD, PhD; Kunio Nakane, MD, PhD; Masafumi Komatsu, MD, PhD
Current chronic diseases are a reflection of the Westernized diet that features a decreased consumption of indigestible dietary fiber metabolized by gut bacteria to butyrate, which has a critical role in colonic homeostasis. The authors report on initiating a semi-vegetarian diet (SVD) for patients with inflammatory bowel disease. There was no untoward effect of the SVD. The remission rate with combined infliximab and SVD for patients with newly diagnosed Crohn Disease was 100%. Maintenance of remission on SVD without scheduled maintenance therapy with biologic drugs was 92% at 2 years. The authors recommend a high fiber intake to treat Crohn Disease.

Special Report
62 A Plant-Based Diet, Atherogenesis, and Coronary Artery Disease Prevention. Phillip Tuso, MD, FACP, FASN; Scott R Stoll, MD; William W Li, MD
Atherosclerosis associated with high dietary intake of meats, fat, and carbohydrates remains the leading cause of mortality in the US. Polyphenols derived from dietary plant intake have protective effects on vascular endothelial cells, possibly as antioxidants that prevent oxidation of low-density lipoprotein. This review provides a mechanistic perspective of the evidence for protection by a plant-based diet against atherosclerotic coronary artery disease.

REVIEW ARTICLES

68 Acupuncture Safety in Patients Receiving Anticoagulants: A Systematic Review. Michael McCulloch, LAc, MPH, PhD; Arian Nachat, MD; Jonathan Schwartz; Vicki Casella-Gordon, RN, MS, CNS; Joseph Cook, JD
A search of PubMed, EMBASE, and Google Scholar revealed 39 citations of which 7 provided reporting quality sufficient to assess acupuncture safety in 384 anticoagulated patients (3974 treatments). Acupuncture appears to be safe in anticoagulated patients, assuming appropriate needleling location and depth. The observed 0.003% complication rate is lower than the previously reported 12.3% following hip/knee replacement, and 6% following acupuncture in a prospective study of 229,230 all-type patients.

CASE STUDIES

74 An Idiosyncratic Reaction to Clopidogrel. Aaysha Kapila, MD; Lovely Chhabra, MD; Allison Diane Locke, MD; Pranav Patel, MD; Atul Khanna, MD; Chakradhar M Reddy, MD; Mark F Young, MD
Clopidogrel is an irreversible antplatelet agent that antagonizes the adenosine diphosphate P2Y12 receptor on platelets disrupting fibrinogen—platelet complex formation. The authors report on a rare but clinically significant case of clopidogrel-induced hepatotoxicity in an elderly white woman.

77 Pemphigus Vulgaris with Tense Bullae. Emilie T Nguyen; Shinko K Lin, MD; Jashin J Wu, MD
A 51-year old woman with a history of type II diabetes mellitus and dyslipidemia presented with painful lips with swelling and crusting. One year after onset of mucosal lesions, she developed an abdominal eruption with several tense vesicles and bullae on an erythematous base.

79 Adult Intussusception. Teng Lu, MD; Yi-mei Chng, MD
This report presents the case of a 37-year-old man with multiple Emergency Department visits for abdominal pain and with negative results for prior imaging studies, who was eventually diagnosed with intussusception after 5 years of recurrent symptoms. The case is followed by a review of the literature.
CLINICAL MEDICINE

83 Image Diagnosis: Weber Syndrome—A Rare Presentation of Acute Leukemia—A Case Report and Review of the Literature. Vallappan Muthu, MD; Santosh Kumar, MD; Caurav Prakash, DM; Prashant Sharma, MD; Subhash Varma, MD

For two weeks before presentation, a 13-year-old boy had fever, fatigue, and breathlessness, and painless lymphadenopathy on both sides of his neck, axilla, and groin. He developed drooping of the right upper eyelid. Non-contrast computed tomography scans of the head showed multiple hemorrhages.

COMMENTARY

86 Harnessing the Affordable Care Act to Catalyze Delivery System Reform and Strengthen Emergency Care in America. John Maa, MD

As health care reform in the US evolves beyond insurance reform to encompass delivery-system reform, the opportunity arises to harness the Affordable Care Act to strengthen patient care in America. This article describes the innovations of the surgeon and acute care surgeon that have emerged to promote teamwork, to reduce readmissions, and to strengthen emergency care.

90 Agents for Change: Nonphysician Medical Providers and Health Care Quality. Nathan A Boucher, PA-C, MS, MPA, CPHQ; Marvin A McMillen, MD, FACS, MACP; James S Gould, PA-C, MS

Nonphysician medical providers may be the first caregivers to encounter the patient and can act as agents for change for an organization’s quality-improvement mandate by supporting best practices through the promotion of guidelines/protocols and playing active roles in patient engagement and organizational quality-improvement efforts.
Gus M Garmel, MD, FACEP, FAAEM

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