

Henry Ford Health System Publication List September 2006

This is a bibliography of journal articles published by Henry Ford Health System personnel. A search was compiled in [PubMed](#) during the month of September 2006, and then imported into [EndNote](#) for formatting.

We will be compiling this bibliography on a monthly basis. Please [contact us](#) if you would like to receive this publication list via email. If the full-text of the article is not available, you can request it from the Sladen Library by clicking on the [Article Request Form](#) or calling us at (313) 916-2550.

You can access this page at http://www.henryford.com/body_nologin.cfm?id=46638.

Benninger, M. S., Ed. (2006). The performer's voice. . San Diego, CA, Plural Publishers. Call Number – WV 500 P438 2006

Brodell, R. T. (2006). "The 10 most commonly asked questions about dermatology maintenance of certification." Arch Dermatol **142**(9): 1229-30. [PDF Full-Text](#)

Cankovic, M. and R. J. Zarbo (2006). "Failure to detect human herpes simplex virus, cytomegalovirus, and Epstein-Barr virus viral genomes in giant cell arteritis biopsy specimens by real-time quantitative polymerase chain reaction." Cardiovasc Pathol **15**(5): 280-6. **Full-text Not Available / [Click for Article Request Form](#)**

A study provided evidence of human herpes simplex virus (HSV) DNA in giant cell arteritis (GCA) biopsy specimens. This prompted us to study our own GCA biopsy specimens using real-time quantitative polymerase chain reaction for the detection of HSV1, cytomegalovirus, and Epstein-Barr virus DNAs. Our study failed to confirm an association between HSV1 and GCA, revealing no viral genome in 35 biopsy specimens of histologically positive temporal arteries.

Danic, M. J., D. J. Applefield and M. Brown (2006). "Anesthetic challenges in a patient with lymphangioliomyomatosis complicated by myasthenia gravis." J Clin Anesth **18**(6): 463-5. [PDF Full-Text](#)

Lymphangioliomyomatosis is a rare restrictive lung disease that is often associated with pneumothorax and prolonged intubation. We report the successful anesthetic management of a patient with lymphangioliomyomatosis, myasthenia gravis, and idiopathic thrombocytopenic purpura undergoing laparoscopic partial nephrectomy for renal lesions, and discuss anesthetic management strategies for this rare disease process.

Ding, G., Q. Jiang, L. Li, L. Zhang, Z. Gang Zhang, K. A. Ledbetter, J. R. Ewing, Q. Li and M. Chopp (2006). "Detection of BBB disruption and hemorrhage by Gd-DTPA enhanced MRI after embolic stroke in rat." Brain Res **1114**(1): 195-203. [PDF Full-Text](#)

Thrombolytic therapy with rtPA increases the risk of hemorrhagic transformation (HT) after cerebral ischemia. We employed contrast enhancement MRI with Gd-DTPA to detect HT in a rat model of embolic

stroke treated with rtPA and a glycoprotein IIb/IIIa receptor antagonist, 7E3 F(ab')(2), at 4 h after embolic stroke. Male Wistar rats were subjected to embolic stroke and treated with the combination of rtPA and 7E3 F(ab')(2) (n=12) or with saline (n=10) at 4 h after onset of stroke. MRI studies were performed immediately and at 24 h after embolization using a 7-T system. Histological measurements were obtained at 48 h. With Gd-DTPA, T1WI images and permeability related MRI parameters (the blood-to-brain transfer constant, K(i), and the distribution volume of mobile protons, V(p)) of 15 out of 18 animals showed hyperintensity regions in gross or microscopic HT areas at 24 h, confirmed histologically at 48 h post stroke. Contrast enhancement MRI detected six of seven (86%) animals with gross HT and nine of eleven (82%) animals with microscopic HT at 24 h after ischemia. Two of eighteen animals with HT, had MRI indices of hemorrhage at 3 h post stroke. However, compared to HT data measured histologically at 48 h in embolic stroke rats, the enhanced areas by Gd-DTPA at 24 h were larger, and the patterns (time, intensity and region) did not directly correlate to the subtypes of HT, i.e., gross or microscopic hemorrhage. Contrast enhancement MRI using Gd-DTPA provides a method to detect gross and microscopic HT after stroke in rats.

Donabedian, S. M., M. B. Perri, D. Vager, E. Hershberger, P. Malani, S. Simjee, J. Chow, E. N. Vergis, R. R. Muder, K. Gay, F. J. Angulo, P. Bartlett and M. J. Zervos (2006). "Quinupristin-dalfopristin resistance in *Enterococcus faecium* isolates from humans, farm animals, and grocery store meat in the United States." *J Clin Microbiol* **44**(9): 3361-5. **Full-text Not Available / [Click for Article Request Form](#)**

Three hundred sixty-one quinupristin-dalfopristin (Q-D)-resistant *Enterococcus faecium* (QDREF) isolates were isolated from humans, turkeys, chickens, swine, dairy and beef cattle from farms, chicken carcasses, and ground pork from grocery stores in the United States from 1995 to 2003. These isolates were evaluated by pulsed-field gel electrophoresis (PFGE) to determine possible commonality between QDREF isolates from human and animal sources. PCR was performed to detect the streptogramin resistance genes *vatD*, *vatE*, and *vgbA* and the macrolide resistance gene *ermB* to determine the genetic mechanism of resistance in these isolates. QDREF from humans did not have PFGE patterns similar to those from animal sources. *vatE* was found in 35%, 26%, and 2% of QDREF isolates from turkeys, chickens, and humans, respectively, and was not found in QDREF isolates from other sources. *ermB* was commonly found in QDREF isolates from all sources. Known streptogramin resistance genes were absent in the majority of isolates, suggesting the presence of other, as-yet-undetermined, mechanisms of Q-D resistance.

Fumo, M. J., O. A. Assi and S. Liroff (2006). "Leiomyoma of the epididymis treated with partial epididymectomy." *Nat Clin Pract Urol* **3**(9): 504-7. **Full-text Not Available / [Click for Article Request Form](#)**

BACKGROUND: A 56-year-old man presented to a urology clinic with a painless left-testicular mass of unknown duration. On physical examination, a firm mass measuring 2 cm x 2 cm and involving the inferior portion of the left epididymis was found. The left testicle, right testicle, and right epididymis looked normal on examination. **INVESTIGATIONS:** Assessment of tumor-marker levels, ultrasound examination of the scrotum, Doppler ultrasound examination, surgical exploration, and histologic examination of frozen sections. **DIAGNOSIS:** Pure leiomyoma arising from the epididymis. **MANAGEMENT:** Complete excision of the mass with its contiguous epididymis, preserving the left testicle and rest of the epididymis.

Grover, K. M., S. M. Bowyer, J. Rock, M. L. Rosenblum, K. M. Mason, J. E. Moran, B. J. Smith and G. L. Barkley (2006). "Retrospective review of MEG visual evoked hemifield responses prior to resection of temporo-parieto-occipital lesions." *J Neurooncol* **77**(2): 161-6. **[PDF Full-Text](#)**

Visual evoked cortical magnetic field (VEF) waveforms were recorded from both hemifields in 21 patients with temporo-parieto-occipital mass lesions to identify preserved visual pathways. Fifteen patients had visual symptoms pre-operatively. Magnetoencephalographic (MEG) VEF responses were detected, using single equivalent current dipole (ECD), in 17/21 patients studied. Displaced or abnormal responses were seen in 15 patients with disruption of pathway in one patient. Three of 21 patients had alterations in the

surgical approach or the planned resection based on the MEG findings. The surgical outcome for these three patients suggests that the MEG study may have played a useful role in pre-surgical planning.

Hamzavi, I. (2006). "Photoadaptation: a path toward rational phototherapy protocols." *J Invest Dermatol* **126**(10): 2156-8. [PDF Full-Text](#)

Photoadaptation is defined as the diminished future response to equivalent doses of irradiation. It is most often estimated in vivo by looking at changes in the minimal erythema dose with subsequent doses of UV radiation. Although photoadaptation's mechanism of action is poorly understood, Palmer et al. help clarify the clinical significance of photoadaptation for the dosimetry of UV-based phototherapy.

Kaufman, S. C. and H. E. Kaufman (2006). "How has confocal microscopy helped us in refractive surgery?" *Curr Opin Ophthalmol* **17**(4): 380-8. [PDF Full-Text](#)

PURPOSE OF REVIEW: To summarize the known uses of in-vivo confocal microscopy in refractive surgery, highlighting the current developments in the field. **RECENT FINDINGS:** Examination of the cornea after laser in-situ keratomileusis demonstrated that the keratocyte density within the laser in-situ keratomileusis flap and anterior residual corneal bed continued to decline during the entire 3-year period of the study. The progressive loss of keratocytes in the flap and anterior portion of the residual corneal bed could have long-term implications in terms of corneal stability, refractive stability and cellular integrity after laser in-situ keratomileusis. Additional studies showed that the density of sub-basal nerves decreased by 90% 1 month after laser in-situ keratomileusis. At some point between 3 and 6 months after laser in-situ keratomileusis, the sub-basal nerves began to recover and by 2 years they had reached approximately 50% of their original preoperative density. Analysis of sub-basal nerve density after photorefractive keratectomy reported that the nerve density completely recovered to preoperative levels by 2 years. Other confocal microscopic studies demonstrated that the microscope can detect infectious organisms in vivo, without stains or dyes. **SUMMARY:** The confocal microscope is a unique diagnostic instrument that can be used to evaluate corneal healing, long-term stability and to assess complications after refractive surgery. The ability of the device to view in-vivo cellular detail, microorganisms, inflammatory cells, epithelial cells, fibrosis and measure the postoperative thickness of the residual corneal bed after laser in-situ keratomileusis, in a noninvasive manner, highlights the unique capabilities of this instrument.

Kim, D. Y., D. S. Kwon, R. Salem, C. K. Ma and M. S. Abouljoud (2006). "Successful embolization of hepatocellular carcinoma with yttrium-90 glass microspheres prior to liver transplantation." *J Gastrointest Surg* **10**(3): 413-6. **Full-text Not Available** / [Click for Article Request Form](#)

We report a case of a patient with end-stage liver disease secondary to hepatitis C, complicated by a large hepatocellular carcinoma. Because of the size of the tumor exceeded the Milan criteria, he was not a candidate for liver transplantation. However, after two treatments with yttrium-90 glass microsphere infusions, the tumor became smaller and the patient's alpha-fetoprotein level dropped to normal range. He was listed for transplantation and subsequently received a deceased donor liver transplant. Two years after his transplantation, he remains tumor free and has normal alpha-fetoprotein levels. This is the first reported case in the literature of using yttrium-90 microspheres as a bridge to liver transplantation in a patient with a large hepatocellular carcinoma. This therapy should be considered in patients with cirrhosis and large hepatocellular carcinomas exceeding current size criterion, who would otherwise be good candidates for transplantation.

Krasner, B. D., F. H. Hamzavi, G. J. Murakawa and I. H. Hamzavi (2006). "Dissecting cellulitis treated with the long-pulsed Nd:YAG laser." *Dermatol Surg* **32**(8): 1039-44. **Full-text Not Available** / [Click for Article Request Form](#)

BACKGROUND: Dissecting cellulitis is a chronic inflammatory scalp condition characterized by pustular nodules, sinus tract formation, and resultant cicatricial alopecia. Current treatments are of limited efficacy. **OBJECTIVE:** This report explored treating dissecting cellulitis with the long-pulsed Nd:YAG laser to determine the capabilities and limitations of this modality with respect to: (1) reducing pus formation; (2) enabling the termination of systemic treatments; (3) investigating the side-effect profile including

dyspigmentation and scarring alopecia; and (4) terminating the disease process. **METHODS:** This observational study followed four patients with long-standing dissecting cellulitis through consecutive treatments with the long-pulsed Nd:YAG laser without epidermal cooling. **RESULTS:** One year after initiating laser treatment, patients achieved decreased pus formation, a reduced reliance on systemic treatments, and a controlled or terminated disease process without dyspigmentation. Three patients had regrowth of terminal hairs in treatment sites. **CONCLUSION:** The long-pulsed Nd:YAG laser is effective in attenuating the progression of dissecting cellulitis without appreciable adverse cutaneous side effects. This is a pilot study, and more patients must be treated in other trials to verify these findings.

Lambing, A., C. A. Markey, C. M. Neslund-Dudas and L. J. Bricker (2006). "Completing a life: comfort level and ease of use of a CD-ROM among seriously ill patients." *Oncol Nurs Forum* **33**(5): 999-1006. **Full-text Not Available / [Click for Article Request Form](#)**

PURPOSE/OBJECTIVES: To evaluate use of a CD-ROM titled *Completing a Life* among patients diagnosed with serious illnesses for comfort level with content and ease of computer use. **DESIGN:** A prospective pilot study collected a convenience sample of 50 people diagnosed with life-limiting illnesses during a six-month period. **SETTING:** The hematology/oncology department of a large healthcare system located in a metropolitan area in the midwestern United States. **SAMPLE:** Convenience sample of 50 patients diagnosed with life-limiting illnesses. Of the patients enrolled (age range = 38-93 years), 72% were female, 68% were Caucasian, 50% were diagnosed with breast cancer or nonsolid tumors, and 40% were newly diagnosed. **METHODS:** Subjects viewed the CD-ROM and completed pre- and post-intervention surveys. **MAIN RESEARCH VARIABLES:** Comfort level with educational media, comfort level of information viewed, and areas of CD-ROM viewed compared to age and stage of illness. **FINDINGS:** Ninety percent of patients reported that they were somewhat or very comfortable with the CD-ROM as a learning tool, and ease of use was rated at 98%. Patients' comfort level with the material increased from 76% to 90% after they viewed the CD-ROM. **CONCLUSIONS:** The pilot study suggests that the *Completing a Life* CD-ROM can be used with patients facing serious or life-limiting illnesses as an additional resource tool for information. **IMPLICATIONS FOR NURSING:** Nurses typically provide the bulk of educational material for their patients. With limited resources available regarding management of life-limiting illnesses, this resource may provide an excellent addition to resources currently available.

Lawrence, J., K. H. Hullsiek, L. M. Thackeray, D. I. Abrams, L. R. Crane, D. L. Mayers, M. C. Jones, J. M. Saldanha, B. S. Schmetter and J. D. Baxter (2006). "Disadvantages of Structured Treatment Interruption Persist in Patients With Multidrug-Resistant HIV-1: Final Results of the CPCRA 064 Study." *J Acquir Immune Defic Syndr* **43**(2): 169-178. **[PDF Full-Text](#)**

BACKGROUND:: We report the final results of Community Programs for Clinical Research on AIDS (CPCRA-064) study, a multicenter, prospective, randomized, controlled trial that determines the long-term clinical impact of structured treatment interruption (STI) in patients with multidrug-resistant (MDR) HIV-1. **METHODS AND RESULTS::** Two hundred seventy-four patients on stable antiretroviral therapy with MDR HIV-1 treatment failure were randomized to a 4-month STI, followed by an optimized antiretroviral regimen (STI arm, n = 140) or an immediate change to an optimized antiretroviral regimen (control arm, n = 134). Main outcome measures were progression of disease or death and changes from baseline in HIV RNA levels (log copies/mL) and CD4 cell counts (cells/mm). The median baseline HIV RNA level was 5.0 log copies/mL, the median CD4 count was 147 cells/mm, and the nadir CD4 count was 32 cells/mm. The median follow-up was 37 months. After the STI period, there were no differences in HIV RNA level responses between treatment arms. Differences in CD4 count responses always favored the control arm, with an advantage of 84 cells from 0 to 4 months (P < 0.0001), 50 cells from 4 to 12 months (P < 0.0001), 45 cells from 12 to 24 months (P = 0.006), and 43 cells after 24 months (P = 0.07). Rates in the STI and control arms for first progression-of-disease event or death were 17.5 and 14.3, respectively (hazard ratio = 1.28; P = 0.22). **CONCLUSION::** STI before changing regimens in patients with MDR HIV-1 treatment failure has a prolonged negative impact on CD4 cell count recovery and does not confer progression of disease or virologic benefits.

Li, X. C., O. A. Carretero, L. G. Navar and J. L. Zhuo (2006). "AT1 receptor-mediated accumulation of extracellular angiotensin II in proximal tubule cells: role of cytoskeleton microtubules and tyrosine phosphatases." *Am J Physiol Renal Physiol* **291**(2): F375-83. [PDF Full-Text](#)

Long-term angiotensin II (ANG II) administration is associated with increased ANG II accumulation in the kidney, but intrarenal compartment(s) involved in this response remains to be determined. We tested the hypothesis that 1) extracellular ANG II is taken up by proximal tubule cells (PTCs) through AT(1) receptor-mediated endocytosis, 2) this process is regulated by cytoskeleton microtubule- and tyrosine phosphatase-dependent mechanisms, and 3) AT(1) receptor-mediated endocytosis of ANG II has a functional relevance by modulating intracellular cAMP signaling. In cultured PTCs, [(125)I]Tyr-labeled ANG II and fluorescein labeled-ANG II were internalized in a time-dependent manner and colocalized with the endosome marker Alexa Fluor 594-transferrin. Endocytosis of extracellular ANG II was inhibited by the AT(1) receptor blocker losartan (16.5 +/- 4.6%, P < 0.01 vs. ANG II, 78.3 +/- 6.2%) and by the tyrosine phosphatase inhibitor phenylarsine oxide (PAO; 30.0 +/- 3.5%, P < 0.05 vs. ANG II). Intracellular ANG II levels were increased by approximately 58% (basal, 229.8 +/- 11.4 vs. ANG II, 361.3 +/- 11.8 pg ANG II/mg protein, P < 0.01), and the responses were blocked by losartan (P < 0.01), the cytoskeleton microtubule inhibitor colchicine (P < 0.05), and PAO (P < 0.01), whereas depletion of clathrin-coated pits with hyperosmotic sucrose had no effect (356.1 +/- 25.5 pg ANG II/mg protein, not significant). ANG II accumulation was associated with significant inhibition of both basal (control, 15.5 +/- 2.8 vs. ANG II, 9.1 +/- 2.4 pmol/mg protein, P < 0.05) and forskolin-stimulated cAMP signaling (forskolin, 68.7 +/- 8.6 vs. forskolin + ANG II, 42.8 +/- 13.8 pmol/mg protein, P < 0.01). These effects were blocked by losartan and PAO. We conclude that extracellular ANG II is internalized in PTCs through AT(1) receptor-mediated endocytosis and that internalized ANG II may play a functional role in proximal tubule cells by inhibiting intracellular cAMP signaling.

McFarlin, K., X. Gao, Y. B. Liu, D. S. Dulchavsky, D. Kwon, A. S. Arbab, M. Bansal, Y. Li, M. Chopp, S. A. Dulchavsky and S. C. Gautam (2006). "Bone marrow-derived mesenchymal stromal cells accelerate wound healing in the rat." *Wound Repair Regen* **14**(4): 471-8. **Full-text Not Available** / [Click for Article Request Form](#)

Bone marrow-derived mesenchymal stromal cells (BMSCs) are multipotential stem cells capable of differentiation into numerous cell types, including fibroblasts, cartilage, bone, muscle, and brain cells. BMSCs also secrete a large number of growth factors and cytokines that are critical to the repair of injured tissues. Because of the extraordinary plasticity and the ability of syngeneic or allogeneic BMSCs to secrete tissue-repair factors, we investigated the therapeutic efficacy of BMSCs for healing of fascial and cutaneous incisional wounds in Sprague-Dawley rats. Systemic administration of syngeneic BMSCs (2 x 10⁶) once daily for 4 days or a single treatment with 5 x 10⁶ BMSCs 24 hours after wounding significantly increased the wound bursting strength of fascial and cutaneous wounds on days 7 and 14 postwounding. Wound healing was also significantly improved following injection of BMSCs locally at the wound site. Furthermore, allogeneic BMSCs were as efficient as syngeneic BMSCs in promoting wound healing. Administration of BMSCs labeled with iron oxides/1,1'-dioctadecyl-3,3',3'-tetramethylindocarbocyanine perchlorate fluorescent dye revealed that systemically administered BMSCs engraft to the wound. The increase in the tensile strength of wounds treated with BMSCs was associated with increased production of collagen in the wound. In addition, BMSC treatment caused more rapid histologic maturation of wounds compared with untreated wounds. These data suggest that cell therapy with BMSCs has the potential to augment healing of surgical and cutaneous wounds.

Meza, J., S. Alam and S. Martin (2006). "FPIN's clinical inquiries. Treatments for chronic prostatitis." *Am Fam Physician* **74**(3): 475-7. [PDF Full-Text](#)

Rybicki, B. A., N. L. Nock, A. T. Savera, D. Tang and A. Rundle (2006). "Polycyclic aromatic hydrocarbon-DNA adduct formation in prostate carcinogenesis." *Cancer Lett* **239**(2): 157-67. **Full-text Not Available** / [Click for Article Request Form](#)

The evidence for polycyclic aromatic hydrocarbons (PAH) playing a role in prostate carcinogenesis comes mainly from associations between reported PAH exposures and prostate cancer in epidemiologic studies. Associations between prostate cancer and DNA repair genotypes and phenotypes have also been reported, lending further credence to a PAH-induced carcinogenesis pathway in prostate cancer. Recent work that demonstrates the human prostate has metabolic enzyme activity necessary for PAH activation and will form DNA adducts upon exposure to PAH further supports PAH carcinogenesis. We have demonstrated the presence of PAH-DNA adducts in prostate cancer cases, but further validation of this biomarker as a carcinogenic agent in human prostate is needed.

Santra, M., X. S. Liu, S. Santra, J. Zhang, R. L. Zhang, Z. G. Zhang and M. Chopp (2006). "Ectopic expression of doublecortin protects adult rat progenitor cells and human glioma cells from severe oxygen and glucose deprivation." *Neuroscience* **142**(3): 739-752. [PDF Full-Text](#)

Doublecortin (DCX) is a microtubule-associated protein expressed in migrating neuroblasts. DCX expression is increased in subventricular zone (SVZ) cells migrating to the boundary of an ischemic lesion after induction of middle cerebral artery occlusion (MCAO) in adult rats and mice. We tested the hypothesis that DCX, in addition to being a marker of migrating neuroblasts, serves to protect neuroblasts from conditions of stress, such as oxygen and glucose deprivation (OGD). Using gene transfer technology, we overexpressed DCX in rat SVZ and U-87 human glioma cells. The cells remained viable against severe OGD, up to 32 h exhibiting 1% apoptosis compared with 100% apoptosis in control. In addition, these genetically modified cells upregulated expression of E-, VE- and N-cadherin, molecules that promote endothelial survival signals via the VE-cadherin/vascular endothelial growth factor receptor-2/phosphoinositide 3-kinase (PI3-K)/AKT/beta-catenin pathway and inactivate the proapoptotic factor Bad. DCX overexpression also significantly increased cell migration in SVZ tissue explants and U-87 cells and significantly upregulated microtubule-associated protein-2 (MAP2) and nestin protein levels in SVZ and U-87 cells compared with wild-type control cells. Knocking down DCX expression in DCX overexpressing SVZ and U-87 cells with DCX small interfering RNA (siRNA), confirmed the specificity of DCX on cell survival against OGD, and the DCX induced upregulation of E-, VE- and N-cadherin, MAP2 and nestin. In NIH3T3 cells, DCX overexpression had no effect on cell survival against OGD, and indicating that the protective effects of DCX was restricted to brain cells e.g. SVZ and U-87 cells. Our data suggest a novel and an important role for DCX as a protective agent for migrating neuroblasts and tumor cells.

Shah, R. and K. Ananthasubramaniam (2006). "Evaluation of cardiac involvement in hypereosinophilic syndrome: complementary roles of transthoracic, transesophageal, and contrast echocardiography." *Echocardiography* **23**(8): 689-91. **Full-text Not Available / [Click for Article Request Form](#)**

Hypereosinophilic syndrome is a rare but important systemic disease with multiple clinical presentations. Approximately 40% of these cases have cardiac involvement. Echocardiography is the most easily available and versatile imaging modality in assessing cardiac involvement in this disease process. As described and reviewed in this case, it may be the first imaging modality to raise suspicion of this disease entity. Hence, clinicians interpreting echocardiograms and caring for patients need to be aware of the manifestations and complementary roles of various echo techniques in delineating cardiac involvement. Furthermore, the importance of a thorough history and laboratory review prior to echocardiography may provide valuable clues which may otherwise be missed.

Silverton, C. D. (2006). "Cemented and cementless fixation: results and techniques." *Instr Course Lect* **55**: 429-37. **Full-text Not Available / [Click for Article Request Form](#)**

There are multiple reports of successful cemented and cementless total knee arthroplasty in the current literature. Although technically more demanding to implant, selected cementless designs, with nearly 20 years of follow-up, demonstrate near-equal success compared with cemented implants, the gold standard. Far more important than the decision to use a cemented or cementless implant is the use of precise technique, adequate balancing of the soft tissues, and proper overall alignment. Failure to achieve these basic principles can lead to early failure in any total knee replacement system.

Simon, M. R., S. Havstad, C. Cotronei, W. Krell, C. C. Johnson and E. L. Peterson (2006). "Assessment of mid flow rate measurements in patients undergoing methacholine challenge."

Allergy Asthma Proc **27**(4): 404-10. **Full-text Not Available / [Click for Article Request Form](#)**

The objective of this study is to assess the FEF(25-75) and FEF(25-75)/FVC in relation to the FEV1 in patients who have had a methacholine inhalation challenge study for a variety of clinical indications. The study is a retrospective review of methacholine challenge results at the university medical center. One hundred twenty-one consecutive patients who had a methacholine challenge performed for clinical indications were included in the study with no intervention. Methacholine was administered in successively increasing twofold concentrations in doses from 0.62 mg to a final concentration of 10 mg. A 20% drop in FEV1 compared to the prechallenge value was considered a positive test. We considered $\geq 25\%$ decrease in FEF(25-75) as a significant change. The $\geq 25\%$ decrease in FEF(25-75) occurred sooner than the 20% drop in FEV1 with a positive response occurring at least one full dose sooner in 23 of the 55 subjects. Thirty two subjects reacted at the same dose. The dose at which the FEF(25-75) decreased by $\geq 25\%$ was significantly different from the corresponding dose causing a 20% decrease in FEV1. The FEF(25-75) decreases more per mg methacholine. There were no subjects in whom there was $\geq 20\%$ decrease in FEV1 without a $\geq 25\%$ decrease in FEF(25-75). The mean FEF(25-75)/FVC after diluent inhalation = 0.87 ± 0.27 standard deviation with a range of 0.23 to 1.67. The doses at which the FEF(25-75)/FVC decreased by $\geq 20\%$ and by $\geq 30\%$ was significantly lower than the corresponding doses causing a 20% decrease in FEV1. FEF(25-75) and the FEF(25-75)/FVC are more sensitive but less specific than the FEV1 as indicators of a positive response to a methacholine challenge. The FEF(25-75)/FVC does not provide additional information to that provided by the FEV1.

Tuchinda, C., H. A. Kerr, C. R. Taylor, H. Jacobe, B. M. Bergamo, C. Elmets, J. Rivard and H. W. Lim (2006). "UVA1 phototherapy for cutaneous diseases: an experience of 92 cases in the United States." Photodermatol Photoimmunol Photomed **22**(5): 247-53. **[PDF Full-Text](#)**

Background: The efficacy and safety of UVA1 (340-400 nm) phototherapy were established by studies from European countries. Purpose: Evaluate experience with UVA1 phototherapy for patients with cutaneous diseases in the United States. Methods: A retrospective analysis of 92 cases of UVA1-treated cutaneous conditions from four medical centers in the United States was performed. Results: Two-third of the patients showed a fair to good response (26-100% improvement) and one-third of the patients showed a poor response (0-25% improvement). Diseases with a moderate to good response (51-100% improvement) included scleredema adutorum, hand or foot dermatitis, atopic dermatitis, morphea (medium or medium-to high-dose UVA1), systemic sclerosis, and urticaria pigmentosa. Besides tanning, other adverse effects were found in 15% of patients, which include pruritus, erythema, tenderness, and burning sensation. Patients with skin types I-III responded better than those with a darker skin type. Conclusion: UVA1 phototherapy is a useful and well-tolerated treatment option for a variety of skin conditions.

Velanovich, V. (2006). "Case-control comparison of laparoscopic versus open distal pancreatectomy." J Gastrointest Surg **10**(1): 95-8. **Full-text Not Available / [Click for Article Request Form](#)**

Laparoscopic distal pancreatectomy is becoming an increasingly used modality in the surgical treatment of pancreatic disease. The assumption is that this will lead to shorter hospitalization and faster recovery. However, actual comparative data between open and laparoscopic distal pancreatectomy is lacking. The purpose of this study is to compare these surgical procedures. All patients who underwent either laparoscopic or open distal pancreatectomy/splenectomy were reviewed. Fifteen patients underwent laparoscopic resection, whereas 41 underwent an open resection. The 15 laparoscopic patients were matched to 15 open patients for age, gender, and pancreatic pathology. Data gathered included length of stay, pancreatic leak, postoperative complications, and return to normal activity. Of the 15 laparoscopic patients, three were converted to open operations. Laparoscopic patients had a median length of stay of 5 days (range, 3-9) compared with 8 days (range, 6-23) for the open patients ($P = 0.02$). The pancreatic leak rate was 13% in each group. Overall postoperative complication rate was 20% in the laparoscopic group compared with 27% in the open group. Laparoscopic patients reported a return to normal activity in 3 weeks (range, 2-7) compared with 6 weeks (range, 4-10) for open patients ($P = 0.03$). Laparoscopic distal

pancreatectomy/splenectomy does lead to shorter hospital stay and faster return to normal activity. Pancreatic leak rate and overall complication rate appear similar.

Velanovich, V. and N. Mohlberg (2006). "The split-stomach fundoplication after esophagogastrectomy." *J Gastrointest Surg* **10**(2): 178-83. **Full-text Not Available / [Click for Article Request Form](#)**

Two complications associated with esophagogastrectomy are anastomotic leak and gastroesophageal reflux. We describe here a modification of an intrathoracic esophagogastrostomy using the gastric fundus to address these issues. After completion of the esophagogastrectomy, the fundus is divided to produce "wings." After the esophagogastrostomy is performed, the wings are used to form a wrap around the anastomosis. This wrap is secured to the esophagus and to the stomach. All patients undergoing the split-stomach fundoplication were compared with all patients undergoing standard esophagogastrectomies. End points were in-hospital mortality, anastomotic leak, and postoperative endoscopic dilation. All living patients were contacted and questioned about refluxlike symptoms and completed the Gastroesophageal Reflux Disease-Health Related Quality of Life (GERD-HRQL) symptom severity questionnaire. Twenty-six patients underwent the split-stomach fundoplication (wrap group), compared to 54 patients undergoing standard resection (no wrap group). Occurrence of end points in the wrap vs. no wrap groups were, respectively, in-hospital mortality, 3.8% vs. 7.4% (P = NS); anastomotic leak, 0% vs. 17% (P = 0.03); reflux symptoms 20% vs. 60% (P < 0.001); postoperative dilation, 40% vs. 30% (P = NS). The median total GERD-HRQL score was 5 for the wrap group vs. 14 for the no wrap group (P = 0.03). The addition of the split-stomach fundoplication to esophagogastrectomy may decrease the incidence of anastomotic leak and postoperative refluxlike symptoms.

Velanovich, V., P. Shadduck, L. Khaitan, J. Morton, G. Maupin and L. W. Traverso (2006). "Analysis of the SAGES Outcomes Initiative groin hernia database." *Surg Endosc* **20**(2): 191-8. **[PDF Full-Text](#)**

BACKGROUND: In 1999, the Society of American Gastrointestinal Endoscopic Surgeons (SAGES) introduced the SAGES Outcomes Initiative as a way for its members to track their own outcomes. It contains perioperative and postoperative data on nearly 20,000 operations. This report provides a descriptive analysis of the groin hernia database. **METHODS:** The SAGES Outcomes Initiative database was accessed for all groin hernia cases from September 1999 to February 2005. The data from the preoperative, intraoperative, and postoperative entries were summarized. These data are purely descriptive and no statistical analysis was done. **RESULTS:** The hernia registry contains 1,607 entries, with 1,070 follow-up entries. Males comprised 85% of patients, 63% were employed, 62% had at least one comorbidity, with 84% ASA class I or II. Primary, unilateral hernia accounted for 86% of cases, whereas 14% were recurrent, 11% bilateral, 6% incarcerated, and 3% required emergency repair. The operating surgeon was the attending surgeon in 83% of cases. Anesthetic techniques were general anesthesia in 74% of cases, regional in 7%, and local in 34%, with only 16% of cases local only. Most patients had symptomatic hernias and symptoms were improved in more than 95% of patients. Most repairs were open, although 45% were endoscopic. The most frequently cited postoperative event was significant bruising (6%), with more than 99% of complications being class I or II. More than 95% of patients were able to return to work by the first postoperative visit. Patients who underwent endoscopic repair were reported to have fewer days of narcotic use than patients undergoing open repairs (0 vs 3). **CONCLUSIONS:** First analysis of the SAGES Outcomes Initiative groin hernia database demonstrates that (a) this is one of the largest prospective; voluntary hernia registries; (b) missing data are infrequent; and (c) the data are similar to published data from national, mandatory registries and randomized trials. Although the SAGES Outcomes Initiative is a voluntary registry, initially designed for surgeon self-assessment, and it therefore has the potential for methodological concerns inherent to voluntary registries, the findings from this first analysis are encouraging. Efforts are ongoing to simplify data entry (PDA), refine data parameters, increase surgeon participation, and determine the role of data audit and thereby the potential for clinical research.

Warden, G. (2006). "A values-based response." *Hosp Health Netw* **80**(7): 134. **Full-text Not Available / [Click for Article Request Form](#)**

Wegienka, G., D. R. Ownby, S. Havstad, L. K. Williams and C. C. Johnson (2006).

"Breastfeeding history and childhood allergic status in a prospective birth cohort." *Ann Allergy Asthma Immunol* **97**(1): 78-83. [PDF Full-Text](#)

BACKGROUND: Breastfeeding provides the best possible nutrition for newborns, but its role in the development of allergies is complex. **OBJECTIVE:** To examine the relationship between breastfeeding and early childhood skin sensitization. **METHODS:** In a birth cohort of 405 children from the Childhood Allergy Study, we used maternal report to classify children's duration of breastfeeding and whether they were breastfed only, formula fed only, or both. We examined the relationships between this information and childhood allergies as determined by skin prick testing for inhalant allergens at age 6 to 7 years.

RESULTS: There was no association between duration of breastfeeding and risk of allergic sensitization. Overall, children who were breastfed only were 50% more likely to have allergic sensitization than those fed formula only (relative risk [RR], 1.5; 95% confidence interval [CI], 1.1-2.1). Although the estimates are imprecise, this RR was higher for children born to mothers reporting a history of allergy (RR, 1.8; 95% CI, 1.0-3.0) than for those born to mothers with no allergic history (RR, 1.3; 95% CI, 0.9-2.1), for children in households without (RR, 1.6; 95% CI, 1.1-2.2) vs with (RR, 1.0; 95% CI, 0.3-4.0) multiple pets, and for those with an older sibling (RR, 2.0; 95% CI, 1.2-3.3) vs firstborns (RR, 1.3; 95% CI, 0.8-2.1).

CONCLUSIONS: Breastfeeding without formula supplementation may be associated with an increased risk of childhood allergies. However, this association may vary with birth order, exposure to household pets, and maternal allergic history.

Xin, H., Y. Li, X. Chen and M. Chopp (2006). "Bone marrow stromal cells induce BMP2/4 production in oxygen-glucose-deprived astrocytes, which promotes an astrocytic phenotype in adult subventricular progenitor cells." *J Neurosci Res* **83**(8): 1485-93. [PDF Full-Text](#)

Bone morphogenetic proteins (BMPs) affect cell proliferation and differentiation. Astrocytes in ischemic brain are highly responsive to bone marrow stromal cell (BMSC) treatment. We investigated the effects of BMSCs on astrocytes cultured under oxygen- and glucose-deprived conditions, which in part simulate in vivo stroke conditions, to test the hypothesis that BMSCs alter astrocytic expression of BMPs which may contribute to neurological functional recovery of stroke. Quantitative real-time RT-PCR showed that the expression of BMP2/4 mRNAs decreased within ischemic astrocytes. In contrast, BMP2/4 mRNA was significantly increased after cocultured with BMSCs. Western blotting also confirmed this increase at the protein level in the medium of ischemic astrocytes after coculture with BMSCs. As a source of neural stem and progenitor cells, cultured subventricular zone (SVZ) neurospheres exposed to medium obtained from ischemic astrocytes cocultured with BMSCs were significantly enriched in cells expressing the astrocytic marker glial fibrillary acidic protein (GFAP), but not at the expense of beta-III-tubulin-positive SVZ neuroblasts. The expression of BMP2/4 subsequently increased the phosphorylation of downstream effector Smad1 and the expression of notch signal pathway-induced protein Hes1 in cultured SVZ neurospheres. BMP antagonist Noggin blocked the elevation of phosphorylated Smad1 and the expression of Hes1 as well as reducing the percentage of astrocytic SVZ progenitor cells. Our results indicate that BMSCs increase BMP2/4 expression in ischemic astrocytes. These changes enhance subventricular progenitor cell gliogenesis by activating relevant signaling pathways. BMSC-stimulated signaling of endogenous astrocytes may alter the ischemic environment, promoting remodeling of brain and hence, improve functional recovery after stroke.

Zhang, L., Z. Zhang, R. L. Zhang, Y. Cui, M. C. Lapointe, B. Silver and M. Chopp (2006).

"Tadalafil, a long-acting type 5 phosphodiesterase isoenzyme inhibitor, improves neurological functional recovery in a rat model of embolic stroke." *Brain Res.* Epub Ahead Of Print. [PDF Full-Text](#)

Sildenafil, a type 5 phosphodiesterase isoenzyme (PDE5) inhibitor with a short half-life, increases brain cyclic guanosine monophosphate (cGMP) levels and improves neurological functional recovery when administered after stroke. In the present study, we investigated the effects of tadalafil (Cialis), a long acting PDE5 inhibitor, on brain cGMP levels, neurogenesis, angiogenesis, and neurological function during stroke recovery in a rat model of embolic stroke. Male Wistar rats (n=28) were subjected to embolic middle

cerebral artery (MCA) occlusion. Tadalafil was orally administered every 48 h at a dose of 2 mg/kg or 10 mg/kg for 6 consecutive days starting 24 h after stroke onset. Control animals received the equivalent volume of saline at the same time points. For mitotic labeling, bromodeoxyuridine (BrdU, 100 mg/kg) was administered twice a day at 5, 6, and 7 days after stroke. ELISA assays were performed to evaluate the specificity of the effect of tadalafil on cGMP. Treatment with tadalafil at a dose of 2 or 10 mg/kg significantly improved neurological functional recovery compared with saline-treated rats. In addition, tadalafil treatment increased cerebral vascular density and the percentage of BrdU-positive endothelial cells around the ischemic boundary compared with saline-treated rats. Moreover, tadalafil-treated rats showed greater ipsilateral SVZ cell proliferation than saline-treated rats. However, treatment with tadalafil did not reduce infarct volume when compared to the saline group. Tadalafil selectively increased cGMP but not cyclic adenosine monophosphate (cAMP) in brain. Our data demonstrate that treatment of ischemic stroke with tadalafil improved functional recovery, which was associated with increases of brain cGMP levels and enhancement of angiogenesis and neurogenesis.

**HFHS Publication List
Sladen Library**

http://www.henryford.com/body_nologin.cfm?id=46638

If you are interested in receiving this list of HFHS Publications on a monthly basis, please fill out the following information:

Name _____

Department _____

Phone Number _____

Email _____

Do you want to receive it:

_____ **Via email (Recommended format – includes links to full-text if available)**

_____ **Via interdepartmental mail**

Please return to:

**Valerie Reid
HFH Sladen Library, K-17
(313) 916-2550
(313) 874-4730 Fax
vreid1@sladen.hfhs.org**

