Vol.35 No.5 + 10-11/2017 ISSN 0898-7270

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Technique Monitors Nerves During Surgery

novel intraoperative technique takes advantage of the laryngeal adductor reflex (LAR) to monitor the laryngeal and vagus nerves in patients under general anesthesia. Developed at Mount Sinai West Hospital (New York, NY, USA; www.mount sinai.org), the method is based on an endotracheal tube with electrodes

Cont'd on page 3

Hospital Discharge Program Improves Patient Experience

standardized hospital-based program provides patients and caregivers the information they need to continue care at home.

Developed at Boston Medical Center (BMC, MA, USA; www.bmc.org) and Torrance Memorial Health System. (CA, USA; www.torrancememorial.org). the ReEngineered Discharge (RED)

program, first implemented in 2007, is an after hospital care plan (AHCP) set of strategies aimed at improving the discharge process in a way that promotes patient safety and reduces readmission rates and emergency department visits. The AHCP is formatted with large font, color, icons, and simple clear language. It includes information

Com'd on page 7

Cardiac Stents and Bypass Surgery Equally Effective

rug-eluting stents are as effective as coronary-artery bypass grafting (CABG) surgery for many patients with left main coronary artery disease (LMCAD), according to a new study.

Researchers at Columbia University Medical Center (CLIMC; New York, NY, USA; www.cumc.columbia.edu), the Medical University of Silesia (Katowice, Poland; snk.sum.edu.pl), and other institutions conducted a study of 1,905 patients with LMCAD who

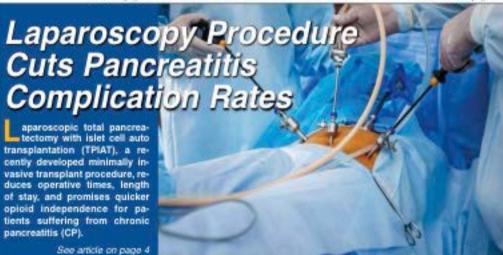
Cont'd on page 4

3D Digital Platform Reinvents Mammography

new digital breast tomosynthesis A (DBT) system delivers superior diagnostic accuracy at the same low dose as a conventional mammography exam.

The GE Healthcare (GE, Little Chalfont, United Kingdom; www. gehealthcare.com) Senographe Pristina system is a three dimensional (3D) DBT mammography platform that allows for excellent visualization of breast lesions without increasing the

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Computerized Anesthesia System Identifies Epidural Space

novel anesthesia system pro-A vides objective visual and audible pressure feedback, allowing anesthesiologists to correctly identify the epidural space.

The CompuFlo Epidural Computer Controlled Anesthesia System is

Cont'd on page 3



Range of Ultrasound Innovations Advance Ob/Gyn Imaging

range of new ultrasound tools enable simultaneous transparent. photo-realistic and 3D visualizations for Ob/Gyn ultrasound imaging.

The new tools are intended to allow clinicians to diagnose complex Obstetric (Ob) and Gynecological (Girn) situations faster, and with more confidence.

The new TrueVue, GlassVue, and aRevealA.1, systems were all developed by Royal Philips (Amsterdam, the Netherlands; www.philips.com), and are intended for use with the Philips EPIO 7 and 5, and Affiniti 70 and 50 ultrasound systems. TrueVue provides photorealistic, lifelike, 3D ultrasound

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SURGERY / EXAM LIGHT ACEM



The SOLED15 is designed for minor surgery, ICUs, recovery moms, first aid, cosmetic surgery and the dental sector. Key features include excellent light intensity, IR-free light beam, CCT of 4.500°K, CRI of 95, long life, and a low power consumption.

LANK COMMON COM - HUN-17-11 SEES

FILTRATION SYSTEM NUVO



The UV24 system reduces the risk of HAIs, defending patients, staff and visitors from airborne bacteria, viruses and mold. It provides 24/7 UV protection using UV-C and filtration to draw in and treat environmental air, all safely hidden behind standard-sized fluorescent or LED ceiling lights.

Last X + 100 p. graft - 11W-17-11 226

ULTRASONIC SURGICAL SYSTEM Omimed



The Autoforce generator features more advanced computer algorithms, friendly UI, durable hand piece with detachable metal connector and without restriction of times of use. Additional benefits include an ergonomic shear for a much easier oper-

- MM-17-11 227

Renal Nutrition Vital Following Bariatric Surgery

pecific renal nutrition needs must be met to improve postbariatric surgery outcomes, particularly for patients with chronic kidney disease (CKD), according to a new review.

According to researchers at the University of Washington (UW; Seattle, USA; www.washington.edu), the phys-

iologic changes a patient experiences after bariatric surgery require consideration of overall dietary requirements, in addition to specific renal nutrition needs that must be met in order to improve post-surgical outcomes. Patients should begin changing their diet prior to surgery, as a preoperative weight loss of at least a 5% loss in total body weight

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is associated with fewer post-surgical complications. as well as predicting greater weight loss following the procedure.

Patients who undergo bariatric followed by renal. transplant surgery face a particular challenge in staying hydrated, requiring a fluid intake of

around 2.5-3 liters of liquid daily for improved kidney outcomes. Frequent lab checks are required for all postbariatric surgery patients, but particularly for those with CKD or on dialysis in order to monitor vitamin and mineral deficiencies very closely. Calcium, folic acid, and iron are among some of the most common deficiencies, even prior to surgery, mainly due to lack of food intake during the first six months post-surgery.

To mitigate post-surgical deficiencies, complete water-soluble multivitamin tablet supplements, rather than gummies and liquid vitamins are recommended, as most of these lack minerals. The researchers also suggest taking higher quality bariatric-specific formulas, even at a higher cost. Hormonal issues, such as hair loss, can arise if supplement quality is low, and particularly if the patient loses a lot of weight very rapidly. They endorse the American Society of Bariatric and Metabolic Surgery (ASMBS) clinical practice guidelines, which recommend checking values of vitamins A. E. K. serum copper, By 2 as methylmalonic acid, folate, and others.

Other post-surgical hormonal issues may include dumping syndrome, an endocrine response within the first



of meals. The ASMBS is expected to release updated, integrated clinical practice guidelines later this year. These new guidelines will recommend patients take about 200% of daily value of vitamins and minerals for at least the first three to six months after surgery, which is about two multivitamins daily," said Debra Clancy, RD, CD, who presented the oral session at the National Kidney Foundation (NKF) spring direcal meeting, held during April 2017 in Orlando (FL, USA). *Dialysis patients on renal supplements will be guaranteed to have deficiencies in some minerals, and these patients will require additional

dumping from the pouch to the small

intestine, resulting in serious, flu-like

side effects, and reactive hypo-

glycemia, when blood glucose levels

become dangerously low following a

meal. On the positive side, most pa-

tients will not require phosphate

binders following bariatric surgery,

mainly due to the small portion sizes

supplementation." Image: New research shows CKD and dialysis patients require renal nutrition tollowing weight-loss surgary (Photo courtesy of Gatty Images).



MANAGEMENT - MAN-17-11 1995

Small Bone Fixation System Addresses Foot and Ankle Injuries

novel plating system offers a comprehensive set of implants that match the size and anatomy of small bones within the foot and ankle

The Baby Gorilla Mini Plating System provides 65 unique plating options from 13 plating families, which include straight plates, L and oblique-L plates, Y and double-Y plates, navicular plates, cuboid plates, mesh plates, Jones fracture compression and hook plates, 5th metatarsal avulsion fracture hook plates, and Akin osteotomy plates. The plates can accept both locking and non-locking variable angle screws, with diameters of 2.0 mm or 2.5mm, and in lengths ranging from 8 to 50mm. The locking screws allow up to 15° off-axis locking placement.

Some of the plates also feature compression slots and are compatible with non-locking screws. The system also includes a robust assortment of instrumentation including curettes, reduction clamps, osteotomes, plate-bending tools, and compression

and distraction devices engineered specifically for use in the foot and ankle for small bone fractures and reconstruction procedures. The Baby Gorilla Mini Plating System is a product of Paragon 28 (Englewood, CO, USA; www.paragon28.com), and has been approved by the U.S. Food and Drug Administration (FDA).

*Committed to creating tailored solutions to improve surgical outcomes, Paragon 28 has launched innovative products and instrumentation that help to streamline procedures, allow surgeons flexibility in technique and approach, and facilitate reproducible results benefitting both the surgeon and patient," said the company in a press statement. "Paragon 28 continues to honor a tradition of comprehensive and innovative solutions with the launch and release of the Baby Gorilla Mini Plating System."

Bone plating is a method of fracture fixation in which one or more metal plates are applied across the fracture and anchored, usually by screws, into



the fragments; the broken bones must first be surgically reset into their proper position. The method does have some drawbacks; after initially placing the plate on the break or fracture the bones are compressed together and held under some slight pressure, which helps to speed up the healing process of the bone. Unfortunately, the tension provided by the steel plate is lost after several days and the break or fracture is no longer under compression, slowing the healing process.

Image: A lateral view of the Baby Gorilla Mini Plating System options (Photo courtesy of Paragon 28).

Bone Growth Stimulators Help Spinal Fusion Patients Recover

wo new medical devices use a low-level pulsed electromagnetic field (PEMF) to activate and augment the body's natural healing process, promoting post-operative spinal fu-

The Orthofix (Lewisville, TX, USA; http://web. orthofix.com/Pages/Home.aspx) CervicalStim and SpinalStim bone growth stimulators are lightweight, all-in-one devices intended as a post-operative adjunct to lumbar and cervical fusion surgical procedures, providing a PEMF signal that covers 360 degrees and up to five levels of fusion. The Spinal-Stim device is indicated as a adjunct to spinal fusion to increase the probability of fusion success and as a nonoperative treatment of salvage of failed spinal fusion, where a minimum of nine months

has elapsed since the last surgery.

The Cervical-Stim device is indicated as an adjunct to cervical fusion surgery in patients at high risk for non-fusion; there are no known contraindications. Both the devices work effectively even when worn over dothing or bracing, and have no power cords, thus allowing for unrestricted patient mobility during the treatment. They also include several patient enhancements aimed at improving fit, comfort, and ease of use. Adverse effects may include increased pain, numbness and tingling, headache, migraines and nausea, which may or may not be directly related to use of the device.

Both systems are available with Stim onTrack, an interactive app designed for smartphones and other mobile devices to help patients follow their

treatment plan that includes daily reminders and a device usage calendar. The mobile app also includes a feature that enables physicians to receive realtime data on how their patients are adhering to their prescribed treatment protocol. The Stim on-Track app is free of charge and available through the iTunes App Store and Google Play.

Electricity's potential to aid bone healing was reported as early as 1841, but it was not until the 1950's that serious study began. During the 1970s, a new approach for the treatment of delayed fractures was introduced, which employed a very specific biphasic low frequency signal that was applied for non-union/delayed fractures. The first use of electrical stimulation in the lumbosacral region was reported by Alan Dwyer of Australia in 1974.



