

DocTalk

A Resource for Metro Atlanta's Primary Care Physicians

MINIMALLY INVASIVE
SPINE SURGERY

Extreme lateral interbody fusion

HELP FOR PATIENTS
ALLERGIC TO
CHEMOTHERAPY

NEW MATERIAL FOR
KNEE AND HIP IMPLANTS

Oxinium offers options

RECOGNIZING
HYPERPARATHYROIDISM

MANAGING A SMALL
RENAL MASS

New guidelines

SLOWING DIABETIC
NEUROPATHY

Clinical trial enrolling patients



DeKalb Medical

Pushing Beyond

{ Issue No. 6 }

Doc Talk

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Desensitization Can Help Patients

Allergic to Chemotherapy

PROBLEM

Some cancer patients can become allergic to their chemotherapy treatments.

SOLUTION

Desensitization can help patients tolerate chemotherapy drugs.

Dr. George Gottlieb



While researchers are making tremendous advances in cancer treatment, chemotherapy still often causes patients to be physically ill and bereft of the normal protections that shield them from infections and subsequent malignancies.

In addition to the terrible burden of their cancer, patients can also become allergic to their chemotherapy treatments. This happens with some frequency with both older and newer treatments. Older treatments, such as carboplatin, cause allergic reactions so often that oncologists routinely do skin testing to check for the onset of allergy. The newer monoclonal antibodies, such as rituximab, can also cause serious and life-threatening allergic reactions.

As a board-certified allergist, I spend much of my time helping patients tolerate things they need, but are causing allergic reactions. The desensitization process involves giving the actual allergen substance to the patient. There has been much research over the past five years in developing approaches for desensitizing patients who are allergic to the chemotherapies they need.

I have set up such a treatment in a program at the Ambulatory Infusion Center for cancer chemotherapy at DeKalb Medical. Over the past several months, we have successfully completed nearly 100 of chemotherapy desensitizations. These include desensitizations for a variety of agents like carboplatin, oxaliplatin, cisplatin, rituximab, and paclitaxel.

The desensitizations take about six to eight hours and must be done each time the drug is taken. Pre-medications are given before the drug is administered. These pre-medications are generally very gentle treatments and may include such medications as oral antihistamines, ibuprofen, and aspirin.

The program at DeKalb Medical is available to all patients and oncologists in the Atlanta area. We have had referrals from many oncologists, and patients have come from areas such as Monticello, Ga., for their treatments.

We invite physicians and patients to call us at **404.294.4761** for more information or to see if their cases can be helped by this treatment.

Extreme Lateral Interbody Fusion — XLIF

for the spine

PROBLEM

Spine surgeons want to employ techniques with as few complications as possible.

SOLUTION

Extreme Lateral Interbody Fusion (XLIF) uses a minimally invasive lateral, retroperitoneal, transpsoas approach to the spine.

Dr. Jason Billinghurst



When patients with conditions such as degenerative disc disease, trauma, tumor, infection, deformity, and instability need spine surgery, surgeons want to employ techniques with as few complications as possible.

Since anterior and posterior approaches for lumbar interbody fusion can be associated with a number of serious complications, interest in minimally invasive approaches for interbody fusion has increased in recent years with the goal of decreasing both complications and patient morbidity. Extreme Lateral Interbody Fusion (XLIF) is a relatively new technique in which access to the disc space is achieved through a minimally invasive lateral, retroperitoneal, transpsoas approach to the spine.

The lateral approach to interbody fusion has many advantages over traditional anterior and posterior approaches. Anterior approaches require mobilization of the abdominal contents and great vessels (aorta, vena cava). Injury to the hyogastric sympathetic plexus and injury to the gastrointestinal and genitourinary systems are also possible with anterior approaches. Traditional posterior approaches require extensive paraspinal muscle stripping and denervation, and have been associated with chronic back pain and failed back syndrome.

The lateral approach to interbody fusion involves minimal soft-tissue disruption and is associated with less blood loss, decreased operative time, less postoperative pain, shorter hospital stays, and quicker recovery and return to work. After surgery, patients typically exhibit all of the benefits of minimally invasive surgery. They are mobilized on the first postoperative day, and then most patients are discharged one to three days after an XLIF procedure.

The goal of any interbody fusion technique is to achieve a solid fusion, restore disc space height and foraminal dimensions, and correct any imbalance. All of these goals must be achieved while minimizing the potential for complications and morbidity.

The XLIF procedure can accomplish these goals through a minimally invasive lateral retroperitoneal approach to the spine.

For more information, call Dr. Billinghurst's office at 404.296.5005.

Benefits of Oxinium for Knee and Hip

Replacement Components

PROBLEM

Traditional materials used for knee and hip replacements wear out over time.

SOLUTION

A new material called Oxinium™ has a longer life span.

Dr. Maurice Jove



A common issue with knee or hip replacements is what surgeons refer to as “wear.” Anytime two moving parts (like the two parts in your knee joint or hip socket) rub against each other repeatedly, friction occurs and tiny scratches can result, causing tiny fragments of material to come off over time. This effect—not unlike the action of a fingernail file—is a main reason a joint may “fail,” causing an individual to undergo repeat surgery.

Oxinium oxidized zirconium is a new material used in the production of components of knee and hip implants. It exhibits superior performance characteristics over the commonly used material cobalt chrome because Oxinium offers superior hardness, smoothness, and resistance to scratching and abrasion. It actually incorporates the best features of both available material options (cobalt chrome and ceramic) without the risks associated with either.

Orthopedic surgeons have been using Oxinium joint replacements for more than eight years in more than 20,000 patients with great success.

Benefits of Oxinium include less wear than cobalt chrome (historically the material of choice for knees) and more toughness than ceramic (an alternative material for hip implants).

The smooth, hard surface of an Oxinium implant is the result of a process that allows oxygen to absorb into zirconium metal, changing its surface from a metal to a ceramic. The ceramic surface makes Oxinium implants 4,900 times more abrasion-resistant than cobalt chrome. It also reduces friction between the implant and the plastic or cartilage surfaces. The result is superior durability over time.

In addition, the Oxinium material contains no detectable nickel, the leading cause of negative reactions in patients with metal allergies.

Because of the longer life span of Oxinium implants, younger patients may now be candidates for joint replacement surgery. In the past, orthopedic surgeons have advised patients under 65 years of age to wait to have joint replacement surgery since the life span of traditional cobalt chrome implants is limited.

For more information, call Georgia Knee & Sports Medicine at 404.296.5005.

Radioguided Parathyroidectomy (MIRP)

for Hypercalcemia

PROBLEM

- A healthy 55-year-old patient comes in for a routine physical exam. On routine testing, his calcium is 10.5.
- A healthy 45-year-old comes in for follow up after a visit to the ER for kidney stones, and her calcium is 10.7.
- A 60-year-old woman recently diagnosed with osteoporosis registers a calcium level of 10.3.

Dr. John Kennedy



All three of these patients should have the calcium test repeated and should have an intact PTH drawn simultaneously. Odds are, they all have hyperparathyroidism.

Fortunately, the diagnosis is usually easy to make because of the tightly controlled correlation between calcium and PTH. If the calcium is high and the intact PTH is also high, this patient has hyperparathyroidism. In all other causes of hypercalcemia, the intact PTH level will be low (or at least in the low normal range).

Hyperparathyroidism is almost always due to the enlargement of one of the four parathyroid glands. The Minimally Invasive Radioguided Parathyroidectomy, or MIRP, is an operation designed to identify and remove only the abnormal gland through a very small neck incision. It's usually performed as an outpatient procedure.

There are some excellent and highly accurate localizing tests that can be done before surgery. The most important of these tests is the sestamibi scan. With this test, the isotope is taken up primarily by cells with high levels of mitochondria, a unique feature of parathyroid adenoma cells. As a result, the scan shows focal areas—or “hot spots”—where the active cells are. In the case of parathyroid glands, a single adenoma almost always shows as a “hot spot” on the scan, since it is a “high energy” gland. The other glands, in a resting state, will not show up. As a result, the scan can identify the single gland that is overactive. The surgery can then be directed toward the identification and removal of a single gland.

The sestamibi scan, coupled with an appropriate pre-operative evaluation and an experienced surgeon, will almost always lead to immediate cure for hyperparathyroidism. We have been tracking our results with this procedure over the past five years and have a success rate of 97 percent.

For more information, call DeKalb Surgical Associates at **404.508.1320**.

Individualized Approaches to Treating

Small Renal Masses

PROBLEM

Evaluation of the patient with a T1 renal mass is an increasingly common scenario in urologic practice.

SOLUTION

Diagnostic and treatment approaches can be individualized, taking the characteristics of the mass and patient into account.

Dr. Keith Levinson



In 2008, there were an estimated 54,390 cases of kidney cancer in the U.S., with a projected 13,010 deaths. Renal Cell Carcinoma (RCC) comprises 85 percent of these cases, the rest being transitional cell cancers of the urothelium. RCC represents 2 percent of all adult cancers and is the most lethal urologic cancer, with 35 percent of patients dying from the disease within five years.

The early detection of small or T1 (T1a <4cm, T1b 4-7cm) renal masses has led to a change in both the workup and management of these lesions.

Historically, solid renal masses have been managed by complete removal of the kidney—also called Radical Nephrectomy (RN). Today, patients diagnosed with smaller renal masses may be candidates for less aggressive options.

Surveillance of localized renal tumors is now performed increasingly in carefully selected patients. Active surveillance studies indicate that most small solid renal masses grow very slowly and that this course of action has a low risk of stage progression.

Energy-based tissue ablative techniques include Radiofrequency Ablation (RFA) and cryoablation. Controversy exists about which technology is superior. Renal tumor ablation can be performed via laparoscopic or percutaneous routes under image guidance. These techniques show promise of efficacy, but long-term oncologic follow up is not yet available.

Partial Nephrectomy (PN) is now widely accepted as an alternative to RN and yields virtually identical oncologic outcomes for appropriately selected patients. PN is now considered the treatment of choice for small renal cancers.

Surgical approaches include open, laparoscopic, and now, robotic-assisted laparoscopic partial nephrectomy. The best approach may be determined by the size and depth of the mass. All of these approaches are now available at DeKalb Medical.

For more information, call **404.292.3727**.

Clinical Trial Studies Ways to Reduce Progression of Diabetic Neuropathy

PROBLEM

Your patients suffer from pain and numbness in their feet associated with diabetes.

SOLUTION

Clinical trial underway for preventing progression of diabetic neuropathy.

Dr. David Olson



Over 10 percent of the United States adult population has impaired glucose control. This impairment leads to an abnormal deposition of glucose-related molecules into the nerves and tissues of the body. Diabetic neuropathy is a slowly progressive deterioration of the nerves, which leads to burning pain and numbness. Over time this leads to impaired ability to walk and affects balance.

Drs. David Olson, Joshua Turknett, and Marshall Nash are currently enrolling patients in a clinical research trial of Ranirestat. This drug taken in oral form (versus placebo) is an aldose reductase inhibitor, which blocks deposition of sorbitol into the nerves. The study is to determine whether this will prevent the progression of diabetic neuropathy in patients who receive the drug. Patients are followed with a series of nerve conduction studies to document the extent of progression or reversal of nerve damage.

The screening evaluation includes a laboratory evaluation for alternative causes of neuropathy and the nerve conduction study at no charge to your patients or their insurance company. Patients who do not qualify are eligible to screen for several other clinical trials designed to find medicines that reduce the pain symptoms of this disease.

For more information, call DeKalb Neurology Associates, LLC at **404.508.4008**.

Doc Talk, a DeKalb Medical publication, was created to improve patient care through a shared awareness of cutting-edge programs and procedures available within Atlanta's physician community. The topics and information in this publication are provided by the physicians featured in the articles. DeKalb Medical does not warrant the effectiveness or appropriateness of the procedures featured in the articles.



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