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INSIDE

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Psoriasis: A Risk Factor for MI?

ABSTRACT & COMMENTARY

By Eileen C. West, MD

Director of Primary Care Women's Health, Clinical Assistant Professor of Internal Medicine; University of Oklahoma School of Medicine, Oklahoma City

Dr. West reports no financial relationship to this field of study.

Synopsis: *Psoriasis sufferers may face an increased risk of having a heart attack, a new study suggests. The risk appears to be most pronounced among younger patients with more severe forms of the disease.*

Source: Gelfand JM, et al. Risk of myocardial infarction in patients with psoriasis. *JAMA*. 2006;296:1735-1741.

PSORIASIS IS A DISEASE OF THE IMMUNE SYSTEM THAT CAN FIRST strike at any age, causing dry, painful skin lesions that can crack, bleed and itch. Many people with psoriasis also have psoriatic arthritis, a chronic, progressive and possibly debilitating inflammatory disease that causes joint pain, stiffness and swelling, and can damage bones. Recent studies have suggested that psoriasis patients are at increased risk of developing lymphoma, and have higher rates of depression and obesity. According to the NIH, there are as many as 7.5 million Americans with psoriasis. As yet, there is no cure.

Advocates of psoriasis research are raising a hue and cry regarding a potential relationship between psoriasis and cardiovascular disease. Psoriasis is the most common T-helper cell type 1 (TH1) immunological disease. Evidence has linked TH1 diseases to cardiovascular disease. Rheumatoid arthritis (RA) is perhaps the best studied, with clear data suggesting an association between RA and coronary artery disease, which rises with more severe disease, even after factoring out known cardiovascular risk factors. So far the link between myocardial infarction and psoriasis has only been studied in the hospital setting where major cardiovascular risk factors were not taken into account. Gelfand's recent study is a prospective, population-based cohort study including patients in the United Kingdom between the ages of 20 and 90, and compares outcomes among patients with and without a diagnosis of psoriasis. More than

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680,000 patients were followed. The main outcome measure was incident myocardial infarction.

The study identified patients with psoriasis which was classified as mild (n = 127,139) or severe (n = 3837) based on extent of skin involvement and/or joint symptoms requiring the use of systemic medication. For each patient with psoriasis, up to five age-matched controls without psoriasis were identified from the same office on the same start date. Data were collected by general practitioners and stored in the General Practice Research Database between 1987 and 2002. Mean follow-up time was 5.4 years. In the statistical analysis, adjustments were made for hypertension, diabetes, history of myocardial infarction, hyperlipidemia, age, sex, smoking, and body mass index.

The study found that for patients with severe psoriasis younger than age 50, psoriasis was associated with increased risk of heart attack comparable to the increased risk seen from major cardiac risk factors. The study also found a higher incidence of heart attacks in others with psoriasis as compared to a control group without psoriasis, even after accounting for obvious risk factors including smoking and hypertension.

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COMMENTARY

The results add to the growing evidence linking TH1 diseases to atherosclerosis and coronary artery disease. Other TH1 diseases such as RA have been shown to be an independent risk factor for acute MI and multivessel coronary artery disease, even after adjusting for coronary risk factors. The exact mechanism by which TH1-mediated diseases predispose a patient to cardiovascular disease is unclear, but may be due to common immunological pathways. There does seem to be an association between severity of disease as measured by inflammatory markers and higher risk.

How significant is the impact of the news from this study? Although relative risk is statistically significant, attributable risk remains somewhat low. A person in their 40s with severe psoriasis has an increased risk of 1 MI in 623 patients per year. For mild psoriasis (80%) the risk is 1 MI per 3646 patients per year. And for a person in their 50's, the risks are 1 MI per 2147 patients per year with mild psoriasis and 1 MI per 430 patients per year with severe psoriasis. More data are needed, starting with a clearer understanding of clinical markers of psoriasis activity, such as body surface area and C-reactive protein levels. In the meantime, patients with psoriasis should be screened and treated for other cardiovascular risk factors such as diabetes, hyperlipidemia and hypertension, and encouraged to adopt healthy lifestyles which include maintaining a healthy body weight, quitting smoking, following a heart-healthy diet and consistent exercise.

Meal Size More Important Than Calorie Content

ABSTRACT & COMMENTARY

By Mary Elina Ferris, MD

Clinical Associate Professor, University of Southern California

Dr. Ferris reports no financial relationship to this field of study.

Synopsis: *Both overweight and normal-weight persons underestimated calorie content of large meals but not smaller meals. Since overweight persons ate larger size meals, they consumed more unnecessary calories.*

Source: Wansink B, et al. Meal size, not body size, explains errors in estimating the calorie content of meals. *Ann Intern Med.* 2006:145;326-332.

Customers at fast-food restaurants in 3 midwestern US cities during 9 weekday lunch hours

were asked to estimate calorie content of their food choices at the end of the meal, while the researchers unobtrusively recorded actual known calorie content previously established for that serving size. This was then correlated with their self-reported height and weight. Participants averaged 20 years of age, and underestimated calories by an overall average of 23%. However, the estimates of small size meals were accurate to within 2.9%, while larger meals had increasing disparity of 38% in actual calories compared to known amounts. Calorie estimations of overweight persons (BMI, 25 or greater) compared to others was not statistically different, but their meal choices contained significantly more calories overall (average, 957 compared to 683 calories).

To evaluate for bias of self-selection from this restaurant survey, a similar study was repeated in a college laboratory using food items with pre-determined portion and calorie sizes. Students successfully estimated the calorie content of small portions within 3%, but underestimated an average of 23% for larger sizes. These estimates were not statistically different for overweight compared to normal-weight persons.

COMMENTARY

It behooves us all to understand the factors behind the epidemic of obesity sweeping the country. The trends of higher calorie counts and larger portion sizes in most prepared foods have been widely publicized, but what factors compel some persons to choose and consume larger amounts than others? Previous research has shown that obese persons consistently underestimate the actual calorie content of their meals,[1] interfering with their attempts at dieting.

This straightforward study, performed without any external grant support, demonstrates that persons of every weight have more problems estimating calorie content in larger size portions than in smaller sizes. Another study by the same author showed this is true even with nutrition experts.[2] Obese persons (at least for the young age utilized in this study) have no inherent difference in their ability to estimate calorie counts. For our patients struggling with weight loss, this knowledge and the advice to choose small size portions in small containers may help them achieve their goals. ■

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Deep Dive: How Nose Picking Affects Nasal Carriage of Staph

ABSTRACT & COMMENTARY

By Joseph F. John, Jr., MD, FACP, FIDSA, FSHEA

Associate Chief of Staff for Education, Ralph H. Johnson Veterans Administration Medical Center; Professor of Medicine, Medical University of South Carolina, Charleston.

Dr. John does research for Merck, is a consultant for Cubist, Roche, and bioMerieux, and is on the speaker's bureau for Pharmacia, GSK, Merck, Bayer, and Wyeth.

Synopsis: *Overcoming the habit of nose picking may aid S. aureus decolonization strategies.*

Source: Wertheim HF, et al. Nose picking and nasal carriage of *Staphylococcus aureus*. *Infect Control Hosp Epidemiol*. 2006;27:863-867.

Nouwen and colleagues at Erasmus University in Rotterdam, have a long and sophisticated interest in staphylococcal infection and, in particular, the role of carriage, and subsequent infection with *S. aureus*.[1] In this report, part of Heiman Wertheim's PhD thesis — whether nose picking and *S. aureus* nasal carriage are associated — was examined. In 2004, the Erasmus group established the concept of a culture rule, a rule that tried to distinguish among persistent carriage, intermittent carriage, and non-carriage. In that paper, it was shown that qualitative and quantitative data from 2 consecutive studies was predictive for persistent carriage, with a reliability of 93.6%.

This current study was done in 2001 and 2002 with Dutch speaking patients > 18 years of age. Patients were asked to document conditions of the nasal such as rhinitis, nasal crusts, and runny nose. They also had to say if they were cigarettes smokers, if they rubbed their noses externally, and if they picked their nose. To be considered a nose picker, the subjects had to say they picked their noses (on a 5-point scale) and had to have physical evidence of nasal trauma due to picking.

There were 2 groups of subjects: one group of healthy volunteers and one group of patients who visited an ENT physician. Patients in the latter group were excluded if they had rhinitis. ENT patients had one nasal culture, and healthy subjects had 5 nasal cultures.

In the patient group, 97 of 238 (41%) were *S. aureus* carriers and 29% were nose pickers. Nose pickers had a relative risk of 1.51 of being carriers. Put simply, 59% of patients who were nose pickers were carriers compared to 35% of those who were not. With regard to quantitation of carriage, nose-picking patients carried a mean of 1.9 colony forming units, compared to only 0.9 cfu of patients who never pick ($P = .02$).

Of the 86 healthy persons studied, 38.4% were non carriers, 25.6% were occasional carriers, 10.5% were moderate carriers, and 25% were frequent carriers. Subjects were more likely to be carriers if they self-reported nose picking. Carriers harbored a few colonies, up to a total of log 3.5 colonies. People who said they never picked their noses, indeed, had very low or absent colony counts.

COMMENTARY

Well, where do we go with these data? The most obvious place is to relate nose pickers with the likelihood that they have more staphylococcal infections, or that by reducing the picking rate, infections would, in turn, be decreased. The Erasmus group, which is always on the cutting edge of staphylococcal infections, may one day be able to take us to that conclusion, but not yet. In the meantime, the data may help us advise patients who have had recurrent staphylococcal infection. In such cases, we can advise those patients that nose picking may increase their likelihood of recurrent infection.

Why do people pick their noses? Wertheim and colleagues think nose picking is initiated by nasal crusts. Indeed, self reporting of nose picking is associated with self reporting of nasal crusts. Perhaps, but in my experience, it is a small percentage of the population that actually reports nasal crusts, and almost everyone picks his or her nose at some point. More work clearly has to be done on more diverse populations to determine self-reporting of crusts, findings of crust on exam, and the character of nasal carriage, including the genomic content and protein expression by colonizing strains.

From this study we know that if you pick your nose you are more likely to be a *S. aureus* carrier, but what we don't know is, is if you are already a carrier, whether the carriage predisposes to nose picking. There are components of nasal mucus and the nasal cytokine response that relate to adherence to nasal mucosa by *S. aureus* through the cell-wall teichoic acids of this bacterium. Intense work is now underway to understand that adhesion, work that has shown so far that wall teichoic acid is necessary, though perhaps not sufficient, for nasal adhesion and thus carriage.

There are several topical and systemic chemotherapeutic products that reduce, at least temporarily, the burden of nasal carriage. Even though there's a plethora of nasal decolonization studies, these studies have not studied the frequency of nose picking before and after decolonization. Further studies are needed to determine if reduction of the nasal load can result in reduced nose picking. Such an observation may add to the value of nasal decolonization, even if transient, in patients at risk for invasive *S. aureus* infection. Perhaps a cycle of colonization, inflammation, trigger-response nose picking increased carriage and increased quantitation. As Wertheim et al state, "It remains to be resolved if nose picking is a cause or a consequence of *S. aureus* nasal carriage.

The Erasmus group deserves superlatives for their long, persistent, and creative pursuit of the nasal connection and invasive *S. aureus* disease. We look forward to further elucidation of those microbiologic and immunologic factors that promote nose picking, factors which may be ameliorated by chemotherapeutic, psychologic, or genetic manipulation. ■

Reference

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Importance of HDL Cholesterol in ACS

ABSTRACT & COMMENTARY

By Michael H. Crawford, MD

Professor of Medicine, Chief of Clinical Cardiology, University of California, San Francisco

Dr. Crawford is on the speaker's bureau for Pfizer.

Synopsis: *Regardless of baseline low-density lipoprotein cholesterol levels and statin therapy, additional strategies to increase HDL cholesterol should be evaluated in patients with acute coronary syndrome.*

Source: Wolfram RM, et al. Impact of low high-density lipoproteins on in-hospital events and one-year clinical outcomes in patients with non-ST -elevation myocardial infarction acute coronary syndrome treated with drug-eluting stent implantation. *Am J Cardiol*. 2006;98:711-717.

PATIENTS WITH ACUTE CORONARY SYNDROMES (ACS) are routinely put on statins, which usually

do little for their high-density lipoprotein (HDL) cholesterol. Thus, Wolfram and colleagues studied the outcomes of ACS patients who underwent drug-eluting stent implantation, stratified by whether their HDL cholesterol was above or below 40 for men or 45 for women. This observational study involved 1032 consecutive patients with ACS based upon ST wave changes or elevated biomarkers of myocardial necrosis. There were 550 patients with low HDL cholesterol. Clinical outcomes at 30 days and one year were analyzed.

The end points were death, Q wave MI, target lesion revascularization (TLR) and a major adverse cardiac event (MACE) composite. Patients with low HDL cholesterol were more likely to have diabetes, obesity, and high triglycerides. In both groups, 98% were treated with statins, and LDL cholesterol was similar. Death at 30 days was higher in the low HDL group as compared to the high HDL (3% vs 0; $P < .001$), as was MACE at 30 days (3% vs 0.3%; $P = .002$). Results for one-year mortality and MACE were similar (12% vs 5%; $P \leq .033$) for death and (27% vs 12%; $P = .005$) for MACE. Increasing HDL by one mg/dL reduced MACE and TLR by 4%. Wolfram et al concluded that HDL cholesterol is a key predictor of MACE and death after ACS treatment and drug-eluting stents and, regardless of LDL cholesterol levels and statin therapy, efforts should be made to increase low HDL levels.

COMMENTARY

Several small studies have shown that HDL cholesterol is inversely related to the development of atherosclerotic cardiovascular disease, and the recent Myocardial Ischemia Reduction with Aggressive Cholesterol Lowering (MIRACL) trial showed that after aggressive LDL lowering with atorvastatin, HDL, but not LDL, cholesterol predicted short-term events at a rate of -1.4% for every 1 mg/dL increase in HDL. Also, therapeutic HDL analogue infusions, such as apolipoprotein A-1 Milano have been shown to reduce atheroma by intravascular ultrasound. Yet in current practice, little attention is paid to HDL. In this study only, 37 of the 550 patients with low HDL (7%) were on specific therapy beyond statins to elevate their HDL after discharge.

Perhaps the lack of enthusiasm for tackling this problem is the lack of a suitable way to raise HDL levels. Exercise can raise HDL, but few patients want to take this dramatic step. Fibric acids may increase HDL, but they are mainly used in patients with high triglycerides and LDL cholesterol. Ezetimibe may increase HDL, but it is mainly used in conjunction with statins to further lower LDL. Niacin is the old standby, but flushing limits its usefulness. At this time, a synthetic HDL is not available. Perhaps physicians would like to raise HDL, but do not have good options for safely doing so. Also, there has been so much emphasis on lowering LDL with statins and the pleiotropic effects of statins, that the fact that they tend to lower HDL has been ignored. In fact, in this study, 95% of the patients were on statins before their ACS event, which may have lowered their HDL cholesterol.

One limitation to this study is that only baseline lipid levels were done. The prognostic value of low HDL is entirely based upon this value. It is possible that their HDL changed after discharge, but since only 7% were on specific therapy to raise HDL, this is unlikely. Nevertheless, it would have been interesting to assess post-discharge lipid levels. Also, this study included only patients treated by percutaneous intervention. Patients treated in other ways may have different results. At this point, the weight of evidence supports the prognostic value of HDL cholesterol in ACS patients, and there is preliminary data that shows that raising it will improve outcomes. Thus, it is prudent to try to raise HDL if it is low in ACS patients. The amount of elevation in HDL needed to change outcomes in not known, but certainly raising it to above 40 in men and 45 in women seems prudent. ■

Traveler's Diarrhea and Irritable Bowel Syndrome

ABSTRACT & COMMENTARY

By Stan Deresinski, MD, FACP

Clinical Professor of Medicine, Stanford, Associate Chief of Infectious Diseases, Santa Clara Valley Medical Center

Dr. Deresinski serves on the speaker's bureau of Merck, Pharmacia, GlaxoSmithKline, Pfizer, Bayer, and Wyeth, and does research for Merck.

Synopsis: *The symptoms of irritable bowel syndrome may occur after gastrointestinal infection in some individuals.*

Source: Stermer E, et al. Is traveler's diarrhea a significant risk factor for the development of irritable bowel syndrome? A prospective study. *Clin Infect Dis*. 2006;43:898-901.

Of 405 Israeli travelers followed for 6 months after return, 84% had visited Asia, while the remain-

der had been to Africa or South America. Traveler's diarrhea was experienced by 118 (28.6%), and 16 (13.6%) of these subsequently developed symptoms suggestive of irritable bowel syndrome (IBS). In contrast, only 7 (2.4%) of the 287 who did not have traveler's diarrhea, developed IBS (relative risk, 5.2; 95% CI, 2.2 to 12.3). Among those for whom the information was available, individuals who developed IBS were significantly more likely to have received an antibiotic as therapy of their traveler's diarrhea (4 of 23) compared to those who did not take an antibiotic (4 of 95; relative risk 4.13; 95% CI 1.1 to 5.3).

COMMENTARY

Postinfectious IBS has been reported to follow infections with a variety of enteric bacterial pathogens, including *Campylobacter*, *Salmonella*, *Shigella*, and enterotoxigenic *Escherichia coli*. A recent publication reported an incidence of IBS of 28%-36% after a large waterborne outbreak of gastroenteritis due to *E. coli* 0157:H7 and *Campylobacter jejuni*.[1] A study by Stermer and colleagues did not identify the etiology of traveler's diarrhea in the patients in this study, but did find an overall, approximate 5-fold increase in relative risk of IBS among subjects who had had traveler's diarrhea. Furthermore, the risk appeared to be increased by the receipt of antibiotics for this illness.

The symptom complex that constitutes IBS is currently believed to result from a number of factors involving both the gastrointestinal tract (eg, alterations in motility and neurenteric signaling together with inflammation-enhanced hypersensitivity) and the interaction between the gastrointestinal tract and the nervous system.[2] On the other hand, while a small pilot study found an increase of subsequent IBS over controls in subjects who had suffered gastrointestinal infections, they found a similar increase in patients who had had community acquired infections that did not involve the gastrointestinal tract.[3] Some studies have suggested that bacterial overgrowth may play a role in some cases of IBS. The results of a recent clinical trial suggest that administration of the non-absorbable rifamycin antibiotic, rifaximin, provides long-term benefit in patients with IBS.[4] An accompanying editorial, however, casts some doubts upon these results, and suggests that this therapeutic approach should be reserved for patients with IBS who have a positive lactulose H_2 breath test indicative of overgrowth.[3] ■

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Pharmacology Update

Sitagliptin Phosphate Tablets (Januvia™)

By William T. Elliott, MD, FACP, and James Chan, PhD, PharmD

Dr. Elliott is Chair, Formulary Committee, Northern California Kaiser Permanente; Assistant Clinical Professor of Medicine, University of California, San Francisco; Dr. Chan is Pharmacy Quality and Outcomes Manager, Kaiser Permanente, Oakland, CA.

Drs. Chan and Elliott report no financial relationships to this field of study.

THE FDA HAS APPROVED THE FIRST OF A NEW CLASS OF drugs for the treatment of type 2 diabetes. Sitagliptin is a dipeptidyl peptidase-IV (DPP-4) inhibitor. Inhibition of DPP-4 prolongs the action of incretin hormones resulting in improved glycemic control. Sitagliptin is marketed by Merck & Co as Januvia™.

Indications

Sitagliptin is indicated as adjunct to diet and exercise to improve glycemic control in patients with type 2 diabetes mellitus. It may be used as monotherapy or in combination with metformin or a thiazolidinedione (ie, pioglitazone, rosiglitazone).[1]

Dosage

The recommended dose is 100 mg once daily taken with or without food. In patients with moderate renal insufficiency (CrCl 30 mL/min to < 50 mL/min) the dose should be reduced to 50 mg once daily. In patients with severe renal insufficiency (CrCl < 30 mL/min) the dose should be 25 mg once daily.[1]

Sitagliptin is available as 25 mg, 50 mg, and 100 mg tablets.

Potential Advantages

Sitagliptin is an orally active drug with a different mechanism of action compared to existing therapy and, therefore, its action may be additive to other therapy such as metformin or a thiazolidinedione. It does not cause hypoglycemia or weight gain.[1,2] Currently avail-

able data suggest that the drug is well tolerated and has a low potential for drug-drug interactions.

Potential Disadvantages

As monotherapy, the magnitude of improvement in glycemic control as measured by reduction in HbA1c and fasting plasma glucose levels appears to be less than that obtained with sulfonylureas, metformin, and possibly thiazolidinediones.[1-3] The long-term effect of inhibition of DPP-4 is not known, as DPP-4 plays an important role in the regulation of differentiation and growth of T lymphocytes and inactivation of bioactive peptides (eg, neuropeptides, circulating peptide hormones, growth hormone-releasing hormone).[4,5]

Comments

Sitagliptin is the first DPP-4 inhibitor to be marketed. Inhibition of this enzyme prolongs the activity of incretin hormones such as glucagon-like peptide-1 and gastric inhibitory polypeptide. These are released in response to oral ingestion of nutrient. The resultant effect is inhibition of glucagon release, delay in gastric emptying, and increase in satiety.[6] Monotherapy efficacy was shown in two double blind, placebo-controlled studies, for 18 weeks (n = 296) and 24 weeks (n = 273). Patients inadequately controlled with diet and exercise and with HbA1c of 7% to 10% were randomized to sitagliptin (100 mg) or placebo. Those who received sitagliptin showed a placebo-adjusted difference in HbA1c of -0. 6% (95% CI, -0.4 to -0.8) and -0.8 (95% CI, -0.6 to -1.0) respectively).[1,2] Mean placebo-subtracted reductions in fasting plasma glucose (FPG) were -20 mg/dL and -17 mg/dL respectively. Two-hour mean adjusted postprandial glucose was reduced by 47 mg/dL in the 24-week study. Identical mean reductions (-0.7 %) were reported when sitagliptin (100 mg daily) was added to metformin (at least 1500 mg) (n = 677) or pioglitazone (30-45 mg daily) (n = 337).[1] Sitagliptin appears to be well tolerated. Adverse effects compared to placebo include nasopharyngitis (5.2% vs 3.3%), upper respiratory tract infection (6.3% vs 3.4%), headache (5.1% vs 3.9%), nausea (1.4% vs 0.6%), and diarrhea (3.0% vs 2.3%). A small increase in white blood counts (200 cells/microL) has been reported.[1] DPP-4 has a dual function as a regulatory protease as well as a binding protein.[4] The effect of long-term inhibition of DPP-4 is not known. There are currently no published studies comparing sitagliptin with other first line agents such as a sulfonylurea or metformin. The cost of sitagliptin is about $5 per day.

Clinical Implications

Sitagliptin provides a new oral antidiabetic drug with a novel mechanism of action. Improvement in glycemic control as monotherapy appears to be modest (-0.6 % to -0.8% in HbA1c and 17-20 mg/d in FPG). In contrast, reductions of 1 to 2% in HbA1c are expected with sulfonylurea or metformin monotherapy along with a reduction of FPG of 36-72 mg/dL.[3] For thiazolidinediones monotherapy, a 0.5 to 1.5% reduction is reported for HbA1c. Given the experience with established agents, lack of comparative studies, unknown long-term effects, sitagliptin should be reserved a second-line therapy. ■

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CME Questions

27. Which of the following statements about overweight compared to normal weight persons is true?

a. Overweight persons are more likely to underestimate the number of calories in a large meal but not a small meal.
b. Overweight persons deceive themselves intentionally to underestimate the number of calories in a meal.
c. Overweight persons do not care about the number of calories in a meal.
d. Overweight and normal weight persons are different in their calorie estimations.
e. None of the above

28. What is the additional risk of a person in their 50s with mild psoriasis developing an MI?

a. 1 in 10
b. 1 in 300
c. 1 in 3500

Answers: 27 (a); 28 (c)

CME Objectives

The objectives of *Internal Medicine Alert* are:

- to describe new findings in differential diagnosis and treatment of various diseases;
- to describe controversies, advantages, and disadvantages of those advances;
- to describe cost-effective treatment regimens;
- to describe the pros and cons of new screening procedures.

Clinical Briefs

By Louis Kuritzky, MD, Clinical Assistant Professor, University of Florida, Gainesville
Dr. Kuritzky is a consultant for GlaxoSmithKline and is on the speaker's bureau of GlaxoSmithKline, 3M, Wyeth-Ayerst, Pfizer, Novartis, Bristol-Myers Squibb, AstraZeneca, Jones Pharma, and Boehringer Ingelheim.

Penile Rehabilitation Post-Prostatectomy

After prostatectomy, many men lose erectile function. It has been recently noted that penile stimulation that actively produces cavernosal dilation may reduce the likelihood of loss of function. Simplistically, it appears that with protracted periods of not infusing the cavernosal sinusoids with freshly oxygenated blood, the lack of endothelial stimulation ultimately results in some degree of fibrosis and/or subsequent refractoriness to stimulation. Tools such as vacuum constriction devices or PDE5 inhibitors (eg, sildenafil) when employed post-prostatectomy have shown promise in reducing development of post-surgical erectile dysfunction.

A combination of treatments might further enhance likelihood of return of sexual function. Nandipati et al prospectively studied patients who underwent bilateral nerve-sparing prostatectomy. Postoperatively, patients received sildenafil 25-50 mg QD beginning at hospital discharge. At 3 weeks postoperatively, patients were instructed in the technique of penile intracorporeal injection (ICI), and advised to perform this 2-3 times weekly, stopping if spontaneous erections returned.

During mean followup of 6 months, 95% of patients were able to resume sexual activity. The active induction of penile erection with combination pharmacotherapy provides the opportunity for most men to resume sexual activity post-prostatectomy. ■

Nandipati K, et al. Int J Impot Res. 2006;18:446-451.

Sunburn in the United States

In 2004, there were almost 8,000 deaths from malignant melanoma. When combined with squamous cell carcinoma and basal cell carcinoma, skin cancers are the most common malignancy in the United States. UV light is a primary risk factor for induction of actinic keratosis and nonmelanoma skin cancers; malignant melanoma is almost twice as common in individuals with sunburn history.

The Behavioral Risk Factor Surveillance Survey (BRFSS) is a representative sample of the adult US population who agreed to be interviewed about health issues. In 2003, subjects who provided information about sunburn (n = 248,042) formed the population from which these data are derived.

Overall, when queried about the previous 12 months history, 39% of adults reported having had at least one sunburn, with 26% indicating two or more sunburn experiences, and 24% having 3 or more sunburns in less than one year's time. There was a definite relationship between age and sunburn experience: young adults (18-24 years) reported the highest sunburn frequency. Men experienced sunburn about 30% more frequently than women. Utilization of alcohol and smoking also correlated with sunburn prevalence.

Young adults apparently do not appreciate the risks associated with sunburn. Increased educational efforts, combined with enhanced skin protection techniques, are in order to curb the burgeoning burden of skin cancer. ■

Brown TT, et al. J Am Acad Dermatol. 2006;55:577-583.

What is the Best Diagnostic Test for Onychomycosis?

Of all nail disorders seen in primary care, onychomycosis (ONYC) is the most common. Since ONYC increases in prevalence with age, clinicians are destined to see the disorder with greater frequency. There are numerous potential ways in which the ONYC diagnosis may be confirmed, but the gold standard is generally considered to be culture. Lilly et al compared 7 different diagnostic tests using toenail tissue from 204 patients with a clinical diagnosis of ONYC. Patients were excluded if they suffered other nail dystrophies or had recently used antifungal medications (topical or systemic).

Cost-effectiveness was the primary end point. Methods compared were KOH wet mount (lab-technician interpreted), KOH wet mount (dermatologist interpreted), KOH+DMSO wet mount, KOH + Chlorazol black E wet mount, periodic acid-Schiff staining (PAS), and two different culture methods (dermatophyte test medium and Mycobiotic and Inhibitory Mold Agar).

PAS was the most sensitive test (98.8%), but the least cost effective, with a typical price for PAS histology more than $100. The KOH wet mount with Chlorazol black E was the most cost effective. The authors suggest that for persons not experienced with the KOH/Chlorazol black E microscopy, even though PAS is more expensive, it may be a reasonable choice because of its high sensitivity and the fact that it is generally considered 'operator independent.' ■

Lilly KK, et al. J Am Acad Dermatol. 2006;55:620-626.

In Future Issues:

Acute Coronary Syndromes: Women are Stronger