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INSIDE

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You're Overweight — There, I've Said It

ABSTRACT & COMMENTARY

By Allan J. Wilke, MD, MA

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

Synopsis: *People who are told by their physicians that they are overweight or obese are more likely to identify themselves as such, more likely to want to lose weight, and more likely to try.*

Source: Post RE, et al. The influence of physician acknowledgment of patients' weight status on patient perceptions of overweight and obesity in the United States. *Arch Intern Med* 2011;171:316-321.

STARTING WITH THE ASSUMPTION THAT OBESE INDIVIDUALS' DESIRE TO lose weight is tied to their perception that they are overweight and that this places them at greater health risk, these researchers set out to answer two questions: Do obese and overweight people recognize their weight status; and do physicians' acknowledgement of that status influence their perceptions and behavior?

They analyzed data from the 2005-2008 National Health and Nutrition Examination Survey (NHANES), the ongoing national survey of the U.S. population. The inclusion criteria were: 20-64 years of age, having been told by a physician (or another health professional) that they were overweight, and having their height and weight measured and body mass index (BMI) calculated. A total of 7790 participants met the criteria. Of these, 5474 (70%) had a BMI ≥ 25, and of these, 2874 had a BMI ≥ 30. (These numbers represent the cutoffs for overweight and obesity, respectively.) The subjects were asked their heights and weights, whether they consider themselves overweight, what their desired weight was, and the number of their weight loss attempts.

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The percentages of individuals with a BMI ≥ 25 were 29% for ages 20-34, 39% for 35-49, and 32% for 50-64. A similar pattern was observed for individuals with BMI ≥ 30. The subjects' self-reported heights and weights correlated well with the measured ones, although slightly less so for obese participants. Sixty-two percent of individuals with BMI ≥ 25 identified themselves as being overweight. For the purposes of being told by a health professional that they were overweight, the researchers did not distinguish between overweight and obesity. A total of 45.2% of subjects with BMI ≥ 25 had been told that they were overweight; 66.4% of those with a BMI ≥ 30 had been told. Using the group of subjects who had never been told they were overweight as the reference group, the researchers also calculated odds ratios (OR) for behaviors of those who had been told. Participants who had been told that they were overweight were more likely to identify themselves that way than participants who had not been told: 94.0% vs 63.1% for BMI ≥ 25 (OR 8.26), and 96.7% vs 81.4% for BMI ≥ 30 (OR 6.11). Similarly, participants who had been told they were overweight were more likely to want to lose weight than those who weren't told, 96.1% vs 73.7% for BMI ≥ 25 (OR, 7.58) and 97.4% vs 86.1% for BMI ≥ 30 (OR 4.84). They were also more likely to have attempted weight loss in the past 12 months, 64.5% vs 39.0% for BMI ≥ 25 (OR 2.51), and 64.9% vs 42.6% for BMI ≥ 30 (OR 2.24). These associations held when controlled for age, sex, race, education, income, marital status, whether patients had a routine source of health care, and number of physician visits in the last 12 months. Subjects who were older, female, had a routine place of healthcare, and had at least one physician visit in the previous 12 months were more likely to be told that they were overweight. Married participants or those living with a partner were less likely to be told. Non-Hispanic blacks were less likely to be told than non-Hispanic whites.

■ COMMENTARY

We have reached and waddled past the tipping point in our nation's battle of the bulge. More than two-thirds of our citizenry are overweight or obese.[1] Physicians and their weight-challenged patients are not on the same page when it comes to perceptions about weight status and obesity's inherent dangers. Physicians consistently place their patients in higher weight categories than the patients place themselves and assign considerably more risk to their health. Patients are abundantly optimistic about their ability and motivation to lose weight and the amount they can lose.[2] I suppose we could be wrong, but more likely, we're not, having observed the great difficulty most people have trying to lose weight.

This study has good news and bad. The good news is that patients are very honest when reporting their heights and weights and they are more likely to consider themselves to be overweight, to want to lose weight, and to try to lose weight if they are told by a physician that they are overweight. The bad news is that more than a third of individuals who are overweight do not recognize their weight status, and more than half had never been told by their physicians that they were overweight. I do not like to scold, but in what other epidemic is a physician response rate less than 50% acceptable? Of course, since this is a study that depends on patients' self report, we really don't know what their physicians may or may not have said. However, my anecdotal observations of my medical students' estimation of weight on examination of standardized patients leads me to believe that they do not recognize overweight or obesity when they see it. Perhaps it is generational, and "overweight" is the new "normal." Whatever the reason, we just do not do well in this area.[3] More bad news — that group of subjects aged 35-49 that comprised the biggest chunk of overweight and obese patients? They are going to be around for a while. The tsunami is approaching.

Wanting to lose weight is not the same thing as losing it, but patients must start somewhere. In an accompanying commentary, Dr. Baron ponders whether patients may be insulted if we confront them with their obesity.[4] It reminds me of the discomfort we felt a generation ago, confronting patients who smoked cigarettes with their habit. (It also spawned a wonderfully weird Steve Martin routine: "Do you mind if I smoke? Uh, no, do you

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Questions & Comments
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mind if I fart?")[5] There are other uncomfortable parallels. Remember when doctors recommended certain brands of cigarettes? Remember how difficult it was for doctors who smoked to advise their patients to quit? Will doctors who are overweight be able to effectively confront their overweight patients?

Words are powerful. Dr. Baron reminds us that there is support in the literature for advising physicians to tell their patients to quit smoking.[6] He recommends modifying the "5 As" approach to smoking cessation and apply it here: Assess obesity risk; Ask about readiness to lose weight; Advise in designing a weight-control program; Assist in establishing appropriate intervention; and Arrange for follow-up.[7] For physicians who are squeamish about bringing up the topic, he recommends the following: "I am concerned about your weight. Today's measurement places you in the overweight (or obese) category according to our medical definitions." To that I would add, "What would you like to do about that?" ■

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STD Management — What's New?

By Stan Deresinski, MD, FACP, FIDSA

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This article originally appeared in the April issue of Infectious Disease Alert. *At that time it was peer reviewed by Timothy Jenkins, MD, Assistant Professor of Medicine, University of Colorado, Denver Health Medical Center. Dr. Jenkins reports no financial relationship to this field of study.*

Synopsis: *The 2006 Centers for Disease Control and Prevention (CDC) sexually transmitted disease (STD) guidelines have been updated.*

Source: Workowski KA, et al. Sexually transmitted diseases treatment guidelines, 2010. *MMWR Recomm Rep* 2010;59(RR-12):1-110.

THE LATEST ITERATION OF THE CDC GUIDELINES ON THE TREATment of STDs was finally published at the end of 2010 after finishing a process that began in 2008. The more than 100 pages of text are too voluminous to fully summarize here (and would resist useful summarization at any rate). I will instead focus on some of the changes from the 2006 document. Two areas of change in the guidelines, genital warts and sexual assault, will not be discussed here.

Prevention

An extensive section of the current document deals in detail with approaches to the prevention of STDs, including: education and counseling; identification of both symptomatically and asymptomatically infected individuals; effective diagnosis, treatment, and counseling of infected individuals and their partners; and vaccination of at-risk individuals. Education and counseling begins with evaluating risk via questions assessing "The Five Ps": Partners, Prevention of pregnancy, Protection from STDs, Practices (i.e., sexual practices), and Past history of STDs — as well as questions regarding risk for HIV infection and viral hepatitis such as a history of injection drug use. Prevention methods discussed include abstinence and reduction in the number of partners, pre-exposure vaccination (HPV, HBV, HAV), male and female condoms, cervical diaphragms, topical microbicides and spermicides, non-barrier contraception including surgical sterilization and hysterectomy, emergency contraception, male circumcision, post-exposure prophylaxis, pre-exposure prophylaxis, and retesting to detect repeat infections.

Special Populations

Preventive, diagnostic, and therapeutic management of special populations is discussed at length. These groups include pregnant women, adolescents, children, men who have sex with men (MSM), women who have sex with women, and individuals confined to correctional facilities.

Cervicitis, Trichomoniasis

Women with cervicitis should be evaluated for evidence of pelvic inflammatory disease and tested for the presence of infection with *Chlamydia trachomatis* and

Neisseria gonorrheae using a nucleic acid amplification test (NAAT), as well as for trichomoniasis and bacterial vaginosis. If microscopy fails to detect *Trichomonas vaginalis*, further testing, such as culture, should be performed. While infection with *Mycoplasma genitalium* is possible, commercially available tests for this pathogen are not available.

Bacterial Vaginosis

Symptomatic women with bacterial vaginosis should be treated with one of three regimens: metronidazole 500 mg orally twice daily for 7 days; metronidazole gel 0.75% intravaginally once daily for 5 days; or clindamycin cream 2% intravaginally at bedtime for 7 days. Alternative regimens utilize orally administered tinidazole or clindamycin or intravaginal clindamycin ovules. Options for treatment of women with multiple recurrences include the use of metronidazole gel for 4-6 months or oral metronidazole followed by intravaginal boric acid and long-term suppression with metronidazole gel.

Chlamydia trachomatis

The treatment of chlamydia infections during pregnancy has been challenging since doxycycline and fluoroquinolones are contraindicated. While amoxicillin has previously been recommended for the treatment of *C. trachomatis* infection in pregnant women, clinical experience suggests that azithromycin may be safe and effective when administered as a single 1 g oral dose. Repeat testing by NAAT should be performed 3 weeks after completion of therapy and, in those infected in the first trimester, again 3 months later. Those with risk of reinfection should be retested during their third trimester.

***Lymphogranuloma venereum* (LGV)**

Doxycyline 100 mg twice daily for 21 days is recommended for the treatment of LGV infection, with erythromycin as an alternative. In addition, "Although clinical data are lacking, azithromycin 1 g orally once weekly for 3 weeks is probably effective based on its chlamydial antimicrobial activity. Fluoroquinolone-based treatments might also be effective, but extended treatment intervals are likely required." In MSM with anogenital chlamydia infection and either proctitis (as determined by proctoscopic examination and the presence of > 10 white blood cells upon high-power field examination of an anorectal smear specimen) or with HIV coinfection, treatment for LGV with 3 weeks of doxycycline can be considered.

Mycoplasma genitalium

M. genitalium accounts for 15%-25% of cases of nongonococcal urethritis (NGU) in the United States. While both doxycycline and azithromycin are effective for the treatment of chlamydial urethritis, azithromycin (a single 1 g dose) is more effective than the tetracycline derivative for *M. genitalium* infection. Moxifloxacin (400 mg daily for 7 days) also is effective against this infection and is among the acceptable alternative therapies in individuals with recurrent NGU.

Antibiotic-resistant *Neisseria gonorrheae*

The emergence of fluoroquinolone resistance in *N. gonorrheae* is now widespread in the United States and, as a consequence, this class of drugs has not been recommended for the treatment of gonococcal infections since 2007. The only class of acceptable agents at this time are cephalosporins. Resistance to cephalosporins remains rare, as is failure of treatment, especially with ceftriaxone. Approximately 50 cases of failure of oral cephalosporins (cefixime is recommended for oral therapy in the United States) have been reported, with most having occurred in Asia. One possible case of failure of cefixime therapy in Hawaii has been reported. To ensure appropriate antibiotic therapy, clinicians should ask patients with gonorrhea about recent travel to and sexual activity in countries where resistance and treatment failure have been reported.

Indications for Cerebrospinal Fluid (CSF) Examination for Neurosyphilis

Patients with apparent latent syphilis who demonstrate any of the following should have a prompt CSF examination: compatible neurologic or ophthalmologic signs or symptoms, findings suggestive of tertiary syphilis, or serological treatment failure. Quantitative non-treponemal serologic tests should be repeated at 6, 12, and 24 months. "A CSF examination should be performed if 1) titers increase fourfold, 2) an initially high titer (≥ 1:32) fails to decline at least fourfold (i.e., two dilutions) within 12-24 months of therapy, or 3) signs or symptoms attributable to syphilis develop. In such circumstances, even if the CSF examination is negative, retreatment for latent syphilis should be initiated. In rare instances, despite a negative CSF examination and a repeated course of therapy, serologic titers might fail to decline. In these circumstances, the need for additional therapy or repeated CSF examinations is unclear."

HIV infection may be associated with an increased risk of central nervous system involvement by *Treponema pallidum*. In coinfected patients, clinical and CSF abnormalities consistent with neurosyphilis are associated with a CD4 count ≤ 350 cells/mL and/or an RPR titer ≥ 1:32. Despite this association, in the absence of neurologic symptoms or signs, CSF examination in this setting has not been associated with improved clinical outcomes. However, all HIV-infected persons with evidence of syphilis and who have neurologic symptoms and/or signs

should undergo immediate CSF examination. In addition, if there is evidence of failure of treatment of non-CNS or CNS syphilis, repeat CSF examination, as outlined above, is warranted.

Azithromycin-resistant *Treponema pallidum*

Azithromycin as a single 2 g oral dose has been effective in the treatment of early syphilis, but chromosomal mutations in *T. pallidum* associated with treatment failure have now been identified in the United States. As a consequence, azithromycin should be used with caution and only when treatment with penicillin or doxycycline is not feasible. It should not be used in MSM or pregnant women.

Sexual Transmission of Hepatitis C Virus

Recent data indicate that sexual transmission of HCV, especially among HIV-infected persons, is more frequent than previously believed. One in 10 individuals with acute HCV infection report contact with a known HCV-infected sex partner as their only risk for infection. Studies of HCV transmission in heterosexual or homosexual couples have yielded somewhat conflicting results, but generally have identified low but increased rates of HCV infection in partners of persons with HCV infection compared with those whose partners are not HCV-infected. The risk appears to rise in parallel with increasing number of sex partners among both heterosexuals and MSM and this risk is further increased if partners are HIV-infected. Transmission clusters have been identified in HIV-infected MSM, often associated with serosorting (i.e., HIV-infected men having sex with one another), group sex, and the use of cocaine and other non-intravenous drugs during sex. ■

Brief Reports

Stopping Aspirin May Increase Stroke Risk

By Matthew E. Fink, MD

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

This article originally appeared in the April issue of Neurology Alert. *At that time it was peer reviewed by M. Flint Beal, MD, Anne Parrish Titzel Professor, Department of Neurology and Neuroscience, Weill Cornell Medical Center, New York, NY. Dr. Beal reports no financial relationship to this field of study.*

Source: Rodriguez LAG, Soriano LC, Hill C, et al. Increased risk of stroke after discontinuation of acetylsalicylic acid. A UK primary care study. *Neurology* 2011;76:740-746.

The Health Improvement Network UK primary care database was queried for all patients aged 50-84 who were prescribed low-dose aspirin (75-300 mg/day) for the secondary prevention of cardiovascular disease in 2000-2007. The study followed 39,512 individuals for a mean of 3.4 years to identify cases of ischemic stroke (IS) or transient ischemic attack (TIA), and a nested case-control analysis was used to assess the effects of aspirin discontinuation.

The overall incidence of IS or TIA was 5 per 1000 person-years, and was more common in patients with a previous history of cerebrovascular disease or atrial fibrillation. Compared with current users of low-dose aspirin, those who stopped treatment 31-180 days before the index date had a significantly increased risk of IS or TIA (relative risk = 1.40; 95% confidence interval [CI] 1.03-1.92). In conclusion, in patients prescribed low-dose aspirin for secondary prevention of cardiovascular events, discontinuation of aspirin was associated with a 40% increase in the risk of IS or TIA. ■

Hospital-Acquired Vibrations

By Carol A. Kemper, MD, FACP

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Dr. Kemper does research for Abbott Laboratories and Merck.

This article originally appeared in the April issue of Infectious Disease Alert. *At that time it was peer reviewed by Timothy Jenkins, MD, Assistant Professor of Medicine, University of Colorado, Denver Health Medical Center. Dr. Jenkins reports no financial relationship to this field of study.*

Source: Rothberg MB, et al. Phantom vibration syndrome among medical staff: A cross sectional survey. *BMJ* 2010;341:c6914.

The term "phantom vibration" was first described in 2007 in a survey of cell phone behavior, where two-thirds of cell phone users described phantom rings. The term has become increasingly popular, moving on to the Internet and Facebook.

Rothberg and colleagues wondered how often this phenomenon might affect medical personnel who carry cell phones and pagers. They conducted a survey of 176 hospital medical staff (including 160 attending physicians, residents, and medical students) who regularly carried a pager in hospital. Phantom vibrations occurred with 68% of cell phones users and 69% of those with pagers. The majority had been carrying their pagers for at least 1 month, and 99% used their device ≥ 6 hours per day; one-third used their device ≥ 12 hours per day. Nearly half (46%) received an average of five or more pages per hour, and nearly half (46%) indicated their

maximum number of pages per hour was in the range of 11-15. One-fourth received a maximum of 15 or more calls or pages per hour.

Phantom vibrations occurred daily (13%), weekly (39%), or monthly (49%). Risk factors associated with phantom vibrations included younger age, being a resident or medical student, frequency of use, and keeping the device in a breast pocket. Most respondents agreed the sensation was not at all or "only a little" bothersome, but 2% found the sensation bothersome or "very bothersome" (worse than being paged?). Strategies to reduce the sensation included turning the device off or removing the pager — (!) — but moving it to another location sometimes helped.

Because younger age was more frequently associated with this phenomenon, the authors likened it to "new mom syndrome" (listening for the baby crying), but I imagine the hyperacute state (and, at times, sheer anxiety) of taking primary hospital call is more likely to trigger the sensation. ■

Pharmacology Update

Roflumilast Tablets (Daliresp®)

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

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

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

An oral selective phosphodiesterase 4 (PDE4) inhibitor has been approved for the treatment of patients with chronic obstructive pulmonary disease (COPD). Roflumilast is the first drug of this type to be approved for this indication. It is marketed by Forest Pharmaceuticals as Daliresp.

Indications

Roflumilast is indicated to reduce the risk of COPD exacerbation in patients with severe COPD associated with chronic bronchitis and a history of exacerbation.[1]

Dosage

The recommended dose is 500 mcg orally once daily. The tablet may be taken without regard to meals. Roflumilast is available as 500 mcg tablets.

Potential Advantages

Roflumilast provides an agent with a different mechanism of action than current treatment options (e.g., inhaled corticosteroids, anticholinergics, and beta agonist). The drug seems to work better in patients with more symptomatic and severe disease.[2,3]

Potential Disadvantages

Roflumilast is contraindicated in individuals with liver impairment. Psychiatric adverse events were reported more frequently with roflumilast compared to placebo (e.g., anxiety, insomnia, depression). Common adverse events include diarrhea, weight loss, nausea, and headache. Concomitant use of roflumilast and CYP 3A4 inhibitors or dual inhibitors of 3A4 and 1A2 should be used with caution as systemic exposure is increased. Use of rifampin, a strong enzyme inducer, is contraindicated.

Comments

Roflumilast, as well as its N-oxide metabolite, are selective PDE4 inhibitors. Its clinical effect is believed to be mediated via inhibition of proinflammatory cell function rather than bronchodilation (Gross). Its efficacy was studied in eight randomized trials. Two were dose-selection trials, four were placebo-controlled, 1-year trials assessing the rate of exacerbation, and two were 6-month studies where roflumilast was added onto salmeterol or tiotropium.[1,4-6] The primary endpoint in the last two studies was change in prebronchodilator FEV1. Patients randomized to the four exacerbation trials had severe COPD (FEV1 ≤ 50%). In these studies, roflumilast showed a modest improvement in prebronchodilator FEV1 (39 to 58 mL) and 15%-18% reduction in the mean rate of exacerbation/patient/year. When roflumilast was added onto treatment with salmeterol or tiotropium, there were improvements in prebronchodilator FEV1 of 49 mL and 80 mL, respectively.[6] The drug appears to be more effective in patients with more severe disease.[2,3] The discontinuation rates were 14.8% for roflumilast compared to 9.9% for placebo. The most common adverse events associated with roflumilast were diarrhea, nausea, and weight loss. Roflumilast is associated with an increased risk of psychiatric adverse reactions and possibly suicide ideation.[1]

Clinical Implications

COPD is a debilitating lung disease with periodic exacerbation. Pharmacotherapy includes beta agonists, anticholingerics, and inhaled corticosteroids. The goal of treatment is to control symptoms, improve health status, and reduce the frequency and severity of ex-

acerbations.[7] Roflumilast is the newest drug for the management of COPD exacerbations, showing a modest reduction in exacerbations of 15%-18% in patients with severe COPD. Roflumilast is not a bronchodilator but did show measurable but modest improvement in FEV1. Patients with severe COPD with a history of exacerbation and chronic bronchitis appear to benefit from roflumilast. ■

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CME Questions

22. Which one of the following is true about overweight and obese patients who were told by a physician that they were overweight?

a. The patients had a more accurate perception of their weight category.
b. The patients were less likely to want to lose weight.
c. The patients were insulted.
d. The patients were less likely to try to lose weight.
e. Non-Hispanic blacks were more likely than non-Hispanic whites to be told they were obese.

23. Which of the following is recommended by the CDC as a possible therapy for *Chlamydia trachomatis* infection during pregnancy?

a. Doxycycline 100 mg twice daily for 7-10 days
b. Azithromycin 1,000 mg as a single dose
c. Moxifloxacin 400 mg daily for 7-10 days
d. Levofloxacin 500 mg daily for 7-10 days

Answers: 22. a, 23. b

CME Objectives

Upon completion of this educational activity, participants should be able to:

- describe new findings in the differential diagnosis and treatment of various diseases;
- describe the advantages, disadvantages and controversies surrounding the latest advances in the diagnosis and treatment of disease;
- identify cost-effective treatment regimens;
- explain the advantages and disadvantages of new disease screening procedures.

By Louis Kuritzky, MD, Clinical Assistant Professor, University of Florida, Gainesville

Dr. Kuritzky is an advisor for Endo, Kowa, Pricara, and Takeda.

More Salt, Fewer Deaths in Diabetes: Who Would Have Thunk It?

Source: Ekinci EI, et al. Dietary salt intake and mortality in patients with type 2 diabetes. *Diabetes Care* 2011;34: 703-709.

In the general population, there is a linear and reversible relationship between salt intake and blood pressure (BP): more salt in begets higher BP, and salt restriction lowers BP. Although it is generally accepted that BP lowering through antihypertensive medications in hypertensive diabetics improves cardiovascular outcomes, whether BP reduction attainable through lifestyle measures, such as salt restriction, might produce similar improvements has not been well documented. Indeed, salt restriction has the capacity to activate neurohumoral systems that are potentially particularly detrimental to diabetics; for instance, salt restriction can activate the sympathetic nervous system and the renin-angiotensin-aldosterone system, and can reduce insulin sensitivity — each of which can be problematic — particularly for diabetics.

Ekinci et al performed a prospective cohort study on diabetics attending a single diabetes clinic (n = 638). Salt intake was ascertained by 24-hour sodium excretion at baseline and each follow-up visit for the ensuing 10-year period of observation.

After adjustment for other risk factors, the relationship between salt intake and mortality was INVERSE. Specifically, for every 100 mmol INCREASE in sodium excretion, all-cause mortality DECREASED by 28%! Arguments about salt have raged for decades; the authors point out that other previous studies (but none previously specifically in diabetics) have NOT consistently found an association between salt intake and mortality. ■

Bisphosphonates and Femoral Fractures

Source: Park-Wyllie LY, et al. Bisphosphonate use and the risk of subtrochanteric or femoral shaft fractures in older women. *JAMA* 2011;305:783-789.

Although bisphosphonates (BIS) have a proven track record for reduction of osteoporotic fracture, reports of so-called "atypical" femoral fracture associated with BIS use have called for re-examination of the risk-benefit ratio of BIS. To do so, a case-control study of more than 200,000 Canadian women who had received BIS was performed. In this population, 716 atypical fractures occurred, and 9,723 typical osteoporotic fractures occurred.

BIS treatment of osteoporosis has been shown to reduce typical fractures by about one-fourth. Since typical fractures are 15-20 times more common than atypical fractures, approximately four times as many more atypical fractures than have been reported would have had to occur to make the risk-benefit ratio unfavorable. Additionally, not all atypical fractures are attributable to BIS use. Finally, the increased risk for atypical fracture was much more common in subjects who used BIS for more than 5 years.

Atypical fractures are an appropriate concern. Nonetheless, the typical fracture risk reduction far outweighs risk of atypical fracture induction. Risk for atypical fracture might be reduced by suggesting a drug holiday after 5 years of BIS use, particularly in women at the lower end of the spectrum of risk. ■

Can Antihypertensive Treatment Benefit Persons Without Hypertension?

Source: Thompson AM, et al. Antihypertensive treatment and secondary prevention of cardiovascular disease events among persons without hypertension: A meta-analysis. *JAMA* 2011;305: 913-922.

Clinical trial data have shown that more than one-third of persons with prehypertension (130-139/86-89 mm Hg) will develop frank hypertension over a 4-year interval. Indeed, the lifetime risk of developing hypertension in the U.S. general population is approximately 90%. Although treatment of hypertension provides important risk reduction, clinicians rightfully wonder whether providing antihypertensive treatment to high-risk individuals (e.g., diabetics, persons with manifest cardiovascular disease) — at the stage of prehypertension or even before — might be beneficial.

Thompson et al performed a meta-analysis of 25 clinical trials that treated persons with prehypertension or normotension (total n = 40,395). Antihypertensive treatment classes included beta-blockers, ACE inhibitors, ARBs, calcium channel blockers, and diuretics, either alone or in combination.

Outcomes consistently favored antihypertensive treatment. The relative risk of stroke was reduced by 23%, MI by 20%, CHF by 29%, and all-cause mortality by 13%, all of which were statistically significant. These results suggest that patients at high risk of cardiovascular disease may benefit from use of antihypertensive pharmacotherapies at lower blood pressure than traditionally used as a threshold. ■

In Future Issues:

Text is Best? Cell Phone Use and Brain Changes