

Clinical Briefs in Primary Care[™]

The essential monthly primary care update

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ACE Inhibitors, Muscle Strength, and Physical Functioning in Older Women

Source: Onder G, et al. *Lancet*. 2002; 359:926-930.

THE USE OF ANGIOTENSIN-CONVERTING enzyme (ACE) inhibitors has been shown in chronic systolic heart failure (CHF) to reduce mortality, and prevent progression from mild degrees of CHF to more severe disease. Additionally, ACEs have been shown to reduce mortality, stroke, and other vascular end points in persons with previous evidence of vascular disease (ie, adults > 55 with prior stroke, MI, peripheral vascular disease, or diabetes). Whether ACE can be of benefit in persons without CHF or proven vasculopathy was evaluated in this 3-year trial of hypertensive women (n = 641).

Subjects were divided into the categories of continuous ACE users (n = 61), intermittent users (n = 133), never users (n = 146), and "other users," whose hypertension had been controlled either continuously or intermittently with other drugs (n = 301).

Knee extensor muscle strength, walking speed, and overall physical activity was assessed. Mean age of the subjects was 78.9 years. Patients with CHF were excluded from the trial.

Over time, all groups lost some muscle strength, but the continuous ACE lost the least. There was a trend toward continuous ACE use being associated with lesser loss of muscle strength than intermittent ACE use. Walking speed (which has been shown to be

predictive of disability and mortality, as well as other end points) also declined less in continuous ACE recipients than any other group.

Potential mechanisms by which ACE could favorably affect these end points include positive effect on myosin heavy chains in muscle, improvements in insulin sensitivity, improved skeletal blood flow due to reduced kinin breakdown, and others. ■

Diagnosis of Pheochromocytoma— Which Test is Best?

Source: Lenders JWM, et al. *JAMA*. 2002;287:1427-1434.

ALTHOUGH A RARE CAUSE OF HYPERTENSION (HTN), pheochromocytoma (PHEO) is ultimately correctable, and the potential devastating consequences of catecholamine excess found with PHEO merits consideration in a variety of clinical settings in which a secondary cause of HTN is suspect. Unfortunately, diagnosis is hampered by both false-negative and false-positive testing methodologies. Lenders and colleagues evaluated a variety of tests for PHEO in 865 patients submitted for PHEO evaluation at 4 referral centers over a 7-year period, of whom ultimately 214 were confirmed to have PHEO.

The tests studied included plasma free metanephrines (P-FMET), plasma catecholamines (P-CAT), urinary catecholamines (U-CAT), urinary total metanephrines (U-TMET), urinary fractionated metanephrines (U-FMET), and urinary vanillylmandelic acid (U-VMA).

The 2 measurements with highest sensitivity for PHEO were P-FMET and U-FMET.

Highest specificity was found for U-VMA and U-TMET. Based on this information, Lenders et al conclude that P-MET should be the first test of choice for diagnosis of PHEO. Indeed, they suggest that the practice of ordering multiple diagnostic tests should be eschewed, indicating that the diagnosis of PHEO may be adequately included or excluded by simply using the P-FMET alone. ■

Sexual Dysfunction in Women with Type 1 Diabetes

Source: Enzlin P, et al. *Diabetes Care*. 2002;25:672-677.

THE ASSOCIATION OF DIABETES MELLITUS (DM) with erectile dysfunction is clearly established. Less studied is the relationship between diabetes and female sexual dysfunction (FSD). Enzlin and colleagues evaluated sexual function in 97 diabetic Belgian women using questionnaires to assess psychological adjustment to DM, marital satisfaction, depression, and sexual function. As controls, healthy nondiabetic age-matched women (n = 180) attending an outpatient gynecology clinic responded to the same questionnaire.

Almost twice as many DM women suffered than controls and reported sexual dysfunction (27% vs 15%). Specifically, arousal problems (indicated by poor lubrication) were more frequent, in contrast to disorders of desire, dyspareunia, and orgasm, which were found with equal frequency in the DM and control groups.

The population studied was young (mean age 34), so this prevalence of sexual dysfunction may appear surprising. Addi-

tionally, DM women with FSD were found to have a more negative appraisal of their DM, including more problems with emotional adjustment. DM women have a greater burden of FSD than age-matched counterparts. This is the largest study performed to date to compare the frequency of FSD in patients with and without DM. ■

Spirolactone in the Treatment of Patients with Refractory Hypertension

Source: Ouzan J, et al. *Am J Hypertens.* 2002;15:333-339.

CONTROL OF HYPERTENSION (HTN) remains an important public health goal, since JNC VI reports indicate that as few as 27% of hypertensive patients are on treatment and under control. Part of the reason for this level of inadequate control is the difficulty of achieving normotension, despite earnest pharmacologic interventions. Spirolactone (SPR) might be rightfully characterized as an “older” antihypertensive agent, since it was first approved for the treatment of hypertension in 1983. Except for its role in

management of heart failure, little recent attention has been paid to its potential role for management of any other cardiovascular maladies. This trial incorporated SPR among patients defined as “refractory;” persons who maintained blood pressure > 140/90 despite optimal doses of at least 2 antihypertensive agents.

SPR was dosed at 1 mg/kg/d orally, once daily; once blood pressure control was achieved, dosing was reduced to 50 mg/d or less, as needed to control blood pressure. Patients (n = 25) were seen at 1 and 3 months after initiation of SPR. SPR was added to whatever baseline therapy the patient was receiving, except that patients treated with ACE inhibitors had SPR substituted for their ACE.

By 1 month of SPR treatment, 23/25 patients were controlled. By 3 months, all were controlled. Long-term follow-up of these patients went on as long as 2 years, with all SPR patients maintained on low-dose SPR. Only 2 patients were SPR intolerant (1 gynecomastia, 1 impotence). Possibly, some of these patients suffered heretofore undiagnosed hyperaldosteronism. Be that as it may, the observation that a substantial portion of resistant HTN patients might benefit from this inexpensive, well-tolerated medication, is encouraging. ■

Does Amoxicillin Improve Outcomes in Patients with Purulent Rhinorrhea?

Source: De Sutter AI, et al. *J Fam Pract.* 2002;51:317-323.

UNCERTAINTY AMONG CLINICIANS about which patients presenting with upper respiratory tract infections (URI) might benefit from antibiotic treatment may result in over-prescribing. Studies that address the issue of antibiotic efficacy in URI may not mirror clinical practice settings, since often they include imaging or laboratory studies as part of the study that are not available, or not used, in typical clinical practice. To address a commonplace clinical scenario seen in primary care, De Sutter and colleagues studied the effect of antibiotic treatment, specifically amoxicillin (AMX), on patients presenting with URI manifest with purulent rhinorrhea (n = 416).

Subjects were randomized to receive either AMX 500 mg t.i.d. or placebo for 10 days.

Though there was a trend toward greater success, defined as no symptoms or very mild symptoms in persons who received AMX, this effect was not statistically significant. The presence of purulent rhinorrhea, a secondary outcome, disappeared more quickly in persons who received AMX than placebo, but this effect was not sufficient to effect overall recovery. The only other measurable difference between AMX and placebo was the greater frequency of diarrhea with the former. De Sutter et al conclude that patients presenting with purulent rhinorrhea do not gain from the administration of AMX. ■

Exercise Testing in Elderly Men

Source: Spin JM, et al. *Am J Med.* 2002;112:453-459.

OTHER THAN FOR PREDICTING EXERCISE capacity, the role of exercise treadmill testing (ETT) in asymptomatic men remains to be established. Additionally, there are little data to evaluate the prognostic value of ETT in elderly men, whose exercise capacity, and response to exercise, may differ from younger men. This study evaluated a population of men referred to VA hospitals in California (n = 3974) for ETT. Reasons for referral were not detailed in this report, but patients with CHF, MI, or previous coronary bypass were excluded from analysis.

Of the commonplace cardiovascular risk factors (ie, hypertension, smoking, obesity, family history), only hypertension was more commonplace among older men. Using either the US Air Force School of Aerospace Medicine protocol, or an individualized ramp treadmill protocol, all subjects underwent symptom-limited ETT.

As intuition would predict, elderly subjects (age > 65 years) were not able to achieve an equal workload to that attained by younger men (< 65 years). Subjects were followed for 6 years. During this period, mortality in the elderly group was much greater than the younger group (23% vs 10%). The data revealed that the best prognostic factor related to future mortality was METs achieved on ETT: for each 1 MET increase achieved on ETT, there was an associated 11% reduction in mortality. ■

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