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Predicting LVH in Hypertensive Men

Source: Post WS, et al. *Am J Hypertens* 2000;13:1168-1172.

The presence of left ventricular hypertrophy (LVH) in patients with hypertension is a marker of high risk. The same is true of proteinuria (PRO). JNC VI suggests intensified treatment in persons with manifest target organ damage, such as proteinuria and LVH. The most accurate method for determination of LVH is echocardiography; the most accurate method for determination of proteinuria (or microalbuminuria) is 24-hour urine quantitation. Both measurement tools are cumbersome, and echo-cardiography is prohibitively expensive. Whether detection of proteinuria by a spot urine specimen might correlate with LVH has not been prospectively studied and is the subject of this report. Subjects were previously untreated hypertensive African-American men (n = 109). Each subject underwent echocardiography and a single afternoon random urine albumin.

There was a significant correlation between LVH and PRO, independent of other variables related to left ventricular mass or albuminuria. The magnitude of the correlation was similar to that of systolic BP and LVH.

Post et al conclude that obtaining a single random urine for protein is an important predictor of LVH. Since the presence of LVH is an ominous predictor for hypertensive patients, and only a few patients with hypertension actually receive echocardiography due to its expense, the presence of increased protein excretion on a random afternoon sample might be considered a suitable surrogate marker for increased likelihood of LVH. ■

Patients' Knowledge of End of Life Options

Source: Silveira MJ, et al. *JAMA* 2000;284:2483-2488.

End of life (eol) decisions may include such issues as the right to refuse or withdraw life-sustaining treatment, advance directives, legalized physician-assisted suicide, and the double effect (i.e., the legality of administering pain medication that might have the additional effect of hastening death). Despite the widespread familiarity of clinicians with such issues, it remains equally pertinent that the public at large be conversant and informed about such issues. That our populace may be inadequately informed is echoed by results of a recent national poll in which more than one-third of persons were not familiar with the terms "hospice" or "palliative care." This report specifically assessed outpatient adults' (n = 1000) knowledge in four primary areas: refusal and withdrawal of life-saving treatments, physician-assisted suicide, active euthanasia, and the doctrine of double effect.

Subjects were presented with clinical vignettes, such as a patient with terminal cancer, and asked whether the patient had a legal right to refuse potentially curative treatment, IV fluids, or feeding tube. Also, they were queried as to whether the physician could legally turn off a ventilator, inject medication to hasten death, or prescribe a medication that the patient would be enabled to end life if so desired.

Most persons did understand that (in Oregon), patients could refuse life-saving treatment. Less than half understood that patients could withdraw life-sustaining treatment. Only about one-quarter of persons could properly identify assisted suicide as a legal option.

To maximize the benefits of EOL options, the public must be adequately informed of these choices. Even in Oregon, where one would anticipate that knowledge of such issues might be higher than other locales due to recent intense media publicity, there remains substantial room for improvement in public knowledge of EOL options. ■

PLA2 as a Predictor of CHD

Source: Packard CJ, et al. *N Engl J Med* 2000;343:1148-1155.

The west of scotland coronary Prevention Study evaluated 6595 men with LDL 174-232 mg/dL without history of myocardial infarction treated with pravastatin or placebo. Evolution of knowledge about atherosclerosis and its consequences has focused attention upon the role of plaque susceptibility and stabilization as crucial factors determining manifest vascular end points. Phospholipase A2 (PLA2) is an enzyme that may affect atherosclerosis, since it is found in the media of arteries, and is believed to play a role in LDL modification, potentially inducing atherogenic changes in the vascular wall. Using the West of Scotland Study population, Packard et al

measured PLA2 at baseline.

Increased levels of PLA2 were independently associated with a significantly greater risk of the composite end point of nonfatal MI, cardiac death, or revascularization. The risk at the highest quintile was about double that for the lowest. The relationship of PLA2 levels in the West of Scotland trial was equally prominent in recipients of pravastatin as it was in placebo subjects. Packard et al conclude that PLA2 is a potential risk factor that may directly affect atherosclerosis. ■

Individual Cholesterol Variation in Response to a Margarine or Butter-based Diet

Source: Denke MA, et al. *JAMA* 2000;284:2740-2747.

Reduction in cholesterol through diet is a tool commonly used in persons who suffer stroke, myocardial infarction (MI), or peripheral vascular events, as well as in those persons felt to be at risk of such end points. Nonetheless, not all persons respond well to dietary intervention. Indeed, as many as 15-20% of persons counseled on diet do not demonstrate significant cholesterol reductions, despite adherence. This study investigated familial differences on effect of cholesterol-lowering diet upon LDL over two five-week periods.

Of the 56 initial families selected from the Dallas-Ft. Worth area, 46 completed the trial during which subjects used either butter (80% fat by weight) or margarine (since regular commercial margarine contains 60% fat by weight, subjects consumed specially compounded 80% fat by weight margarine). Family compliance to monitored ingestion of butter or margarine was excellent.

On average, adults experienced an 11% reduction in LDL by margarine substitution for butter. In concordance with earlier data, 19% of subjects experienced no LDL lowering. No single genetic factor was determined to account for individual variability in response to diet. Clinicians may anticipate that despite dietary compliance, a substantial minority of individuals will not enjoy cholesterol lowering. ■

A Prospective Study of Back Belts for Prevention of Back Pain and Injury

Source: Wassell JT, et al. *JAMA* 2000;284:2727-2732.

Low back pain (lbp) and its consequent disability have been our nation's single largest source of disability dollar expenditure for many years. Numerous avenues of investigation seek to find effective tools to prevent, treat, or shorten the disability related to LBP. Wassell et al investigated the effect of low back support belts (BSB) in reducing the incidence of back injury claims or LBP among 110 supermarket-merchandise stores of a single corporation.

Of 144,469 corporate employees, 10% were identified as involved in "material handling tasks." Study data come from those individuals who successfully completed baseline interviews, divided equally among stores that required belt use for material handlers, compared to those in which belt use was voluntary.

There was no discernible effect of using a BSB. This same nil effect persisted in a variety of subgroups, including persons with or without history of previous back injury, persons with highly consistent belt wearing habits, and employees with the most strenuous jobs. This study demonstrates that BSB use does not favorably affect LBP. ■

Stratified Care vs. Step Care Strategies for Migraine

Source: Lipton RB, et al. *JAMA* 2000;284:2599-2605.

There is, as yet, no clearly defined evidence-based path for best acute management of migraine. Lipton and colleagues describe "step care" as a process in which the patient usually initiates treatment with a nonspecific treatment such as simple analgesics; if resolution is inadequate, treatment escalation is used. In their description of "stratified care," the choice of initial treatment is based upon headache-related disability (i.e., activity limitations in various domains of function). Lipton et al compared step care with stratified care (n = 1062).

Step care treatment began with aspirin (800-1000 mg) plus metoclopramide (10 mg); unsatisfactory resolution indicated escalation to a triptan (zolmitriptan 2.5 mg). Patients with Migraine Disability Assessment Scale (MIDAS) scores of I-II were treated initially with the same aspirin plus metoclopramide regimen; MIDAS scores II-IV received the triptan as initial therapy.

The proportion of responders was significantly greater in the stratified care than in the step care groups. Lipton et al conclude that the stratified care strategy is superior to step care, suggesting that the patient's headache disability score may be used to enhance the likelihood of success of initial therapy. ■

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