Is Salt Restriction Dangerous For Elders?

BY PEGGY K. YEN

The value of sodium restriction in treating high blood pressure is under scrutiny again, and elders need help separating fact from fiction. The principles of treatment for high blood pressure have not changed in spite of what older adults are reading in some dramatic headlines. Reports based on uncontrolled studies or on grouped analysis of many small studies are not enough to dislodge principles supported by well-designed clinical trials and expert interpretation of data.

The principles of treatment for high blood pressure have not changed in spite of what older adults are reading in some dramatic headlines.

For example, an article reporting higher risk of heart attacks among men with very low sodium intake generated lots of publicity.[1] This journal publication was accompanied by an editorial whose title, "An Unexpected Result for Sodium: Causal or Casual?," suggested that the relationship the authors found wasn't fact but a curiosity to ponder. Newspapers claimed that low-salt diets were doing more harm than good and that doctors were blindly following old guidelines about sodium restriction. Unfortunately, the study resulting in these headlines did not look at the smoking and drinking habits of the men studied or at other dietary factors that may have confounded the results.

Another blood pressure treatment scare occurred when the *Journal of the American Medical Association* circulated a press release entitled "Reducing Salt in the Diet has Little Effect on Blood Pressure" to announce the results of a metaanalysis of 56 trials.[2] The metaanalysis actually concluded that dietary sodium restriction had a modest effect on blood pressure, with the greatest effect on blood pressure occurring in older individuals.[4] Because the effect was not as large as a previous review, the headline stressed a *lack* of effect. An editorial in the same issue of the journal questioned the press interpretation of the results and the choice of studies reviewed, but the publicity favored the catchy headline. The editorial writer, Dr. Claude Lenfant, the head of the National Heart, Lung, and Blood Institute, stressed the strong evidence that reduction of dietary sodium lowers blood pressure in the general elderly population, as well as in older adults with hypertension.

The benefits of sodium reduction in treating high blood pressure are shown in the recent Trial of Nonpharmacologic Interventions in the Elderly (TONE) study and the Treatment of Mild Hypertension Study (TOMHS).[3] In the TONE study, patients aged 60 to 80 years reduced their sodium intake or lost weight, if needed. After 30 months of follow-up, about 40% of the patients assigned to treatment groups were controlling their blood pressure without medication.

The TOMHS study judged the effect of drug treatment of high blood pressure on blood lipids, because a few brief studies using very low–sodium diets had shown an unfavorable change in cholesterol levels. Lifestyle changes, such as dietary sodium and alcohol reduction, fat-modification, and increased physical activity, were also promoted in the TOMHS study. Sodium excretion, which most accurately reflects sodium intake, decreased by about 20%. The treatment regimen significantly reduced blood pressure without raising blood lipids.

Elderly people have the most to gain from moderating

PEGGY K. YEN, RD, MPH, is a nutrition consultant with Cardiovascular Disease and Nutrition Services, Local and Family Health Administration, Maryland Department of Health and Mental Hygiene, in Baltimore.

Geriatr Nurs 1997;18:87-8.

0197-4572/97/$5.00 + 0 **34/1/79851**

their sodium intake. They are most at risk for the consequences of high blood pressure, such as stroke, congestive heart failure, and cognitive problems. Congestive heart failure, for example, is present in 10% of people age 70, a high prevalence that is increasing annually. Elderly people often take several prescription medications. Eliminating one of these, as the elderly patients in the TONE study were able to do, is a big plus because all medications have side effects. The fewer taken or the lower the dose, the better. The increase in blood pressure that occurs with aging is also aggravated by excess salt intake. Reassure your elderly patients that their efforts to moderate sodium intake, lose weight if overweight, and increase their physical activity are still very important in preventing and treating high blood pressure. ■

REFERENCES

1. Alderman MH, Madhaven S, Cohen H, Sealey JE, Laragh JH. Low urinary sodium is associated with greater risk of myocardial infarction among treated hypertensive men. Hypertension. 1995;25:1144-52.
2. Midgley JP, Matthew AG, Greenwood CMT, Logan AG. Effects of reduced sodium on blood pressure: a meta-analysis of randomized controlled trials. JAMA 1996;275:1590-7.
3. Grimm RH Jr, Flack JM, Grandits GA, et al. for the Treatment of Mild Hypertension Study (TOMHS) Research Group. Long-term effects on plasma lipids of diet and drugs to treat hypertension. JAMA 1996;275:1549-56.