Editorial comments

Uncontrolled anger, irritability, and dominance in men are risk factors for coronary heart disease. Further, the greater the presence of these psychosocial elements, the greater the risk. A more subtle expression of antagonism found in women also indicates risk.

Scientists from the Department of Psychology at the University of Maryland conducted a study that examined the relationship between anger, dominance, and attitudinal hostility and the presence of coronary heart disease in men and women.

Study participants, 101 males and 95 females, with an average age of 55.2 years, were interviewed and completed questionnaires. The report can be found in the March issue of *Psychosomatic Medicine*.

A balloon catheter can reduce the need for hysterectomy for bleeding following childbirth, according to Stanford University researchers.

The dual procedures of embolization (where beads are infused into the bleeding artery) and balloon catheterization prevented the need for hysterectomy in 9 out of 11 women. Hysterectomy to stem bleeding following childbirth occurs in one out of every 200 cases.

Results of the study were presented at a meeting of the Society of Cardiovascular and Interventional Radiology.

Pain from spinal compression fractures can be alleviated by injections of a bone cement, say researchers who conducted separate studies at the University of Maryland School of Medicine and at the St. Vincent Mercy Medical Center in Ohio.

Significant relief from pain within 2 weeks was reported by 80% of patients receiving vertebroplasty, an outpatient procedure. Radiography is used to guide the injection of cement, which fills crevices in the fractured vertebrae. The procedure does not appear to produce any serious side effects.

Compression fractures of the spine occur frequently in older patients who have osteoporosis. Approximately 600,000 cases occur each year in North America, and it is more common than hip fractures.

The report was presented at the 25th annual scientific meeting of the Society of Cardiovascular and Interventional Radiology.

Use of computer-generated images allows surgery of deep vascular malformations in the brain, say Stanford University physicians who have been able to completely remove lesions more than 90% of the time using this procedure.

Removal of these deep vascular masses, called angiographically occult vascular malformations (AOVMs), is a dangerous procedure because of the difficulty of avoiding damage to cranial nerves that surround the mass. But the greater precision offered by this technique and other strategies employed by Stanford physicians have resulted in long-term improvements in neurologic symptoms in 52% of patients.

During surgery, the physician directs his scalpel according to the mapping of the brain projected by a computer image in three planes. Surrounding brain tissue, limbs, and facial muscles are monitored for signals that determine when the surgeon is nearing critical brain structures. Surgeons also use the computer image to ascertain the exact location of the mass so that the surgical entry point may be tailored and entry may occur at the base of the brain, providing a less hazardous path.

The danger posed by some AOVMs lies in the possibility of hemorrhage, due to their abnormally thin walls, allowing blood to compress surrounding brain tissue and possibly cause stroke. These spontaneous ruptures may recur, carrying the threat of stroke with each episode. The need for medical intervention is based on the vessel's location, as bleeding in regions that contain less critical brain structures is not as dangerous.

Angiographically occult vascular malformations are named as such because they are not always detected by angiography, the traditional screening method for vascular formations. Magnetic resonance imaging is used instead because it detects blood accumulations from periodic hemorrhaging. Most AOVMs are discovered after a bleeding episode has caused problems, such as partial paralysis, numbness, or double vision.

Zolmitriptan, known as Zomig, provides quicker and longer relief from migraine headaches than sumatriptan succinate.

Dr Michael Gallagher, a researcher from the University of Medicine and Dentistry of New Jersey, School of Osteopathic Medicine, reported that double-blind studies showed significant differences in the effectiveness of the two medications.

Results of the study, which involved 1043 patients at 61 research centers, indicate that more patients who took a 2.5-mg dose of zolmitriptan received quicker and longer relief than patients who took a 50-mg dose of sumatriptan.

Over 23 million Americans, predominantly women, suffer from this chronic condition that is characterized by severe head pain accompanied by nausea, vomiting, and sensitivity to light and sound.

The report can be found in the February issue of *Headache: The Journal of Head and Face Pain*.

A study shows that the beta-1 interferon drug, Rebif, used in the treatment of patients with multiple sclerosis, sustains its beneficial effect for 4 years or more. This study was an analysis of an earlier

study, Prevention of Relapses and Disability by Interferon beta-1, Subcutaneously in Multiple Sclerosis, published in *Lancet* in 1998.

The earlier study found that there were a reduced number of brain lesions visible on a magnetic resonance scan following injections of Rebif as well as a greater time between relapses, thought to be a predictor of long-term outcome. There was an 80% reduction in the number of lesions in the brain and spinal cord, and evidence has suggested that prevention of multiple sclerosis lesions prevents later disability. Also, it took double the time for patients to show a one-point change on the Extended Disability Symptom Scale, which measures symptom severity. The final result was that patients who took the drug for 4 years did not develop neutralizing antibodies, which result in a reduction of the drug's beneficial effect.

The report of the later analysis was presented March 23 at the European Charcot Foundation Symposium in Lausanne, Switzerland.

Virtual colonoscopy may replace the invasive probe for finding colorectal cancer, according to researchers at the University of Texas MD Anderson Cancer Center.

Computed tomography scanning machines produce a three-dimensional image of the colon. Cancerous lesions are detected by virtual colorectal testing about 80% of the time. The technique is invasive only in that it requires the use of laxatives and enemas and an introduction of gas to inflate the area to be observed.

Colon cancer is the third most common cancer among Americans. Growths take 10 to 15 years to become cancerous, so there are many opportunities to screen and remove them. A few medical centers around the country are conducting studies of the new screening.

The risk of HIV transmission to babies during pregnancy and delivery may be reduced with the use of two weapons: a combination of AIDS drugs and delivery by cesarean section. Researchers from the University of North Carolina at Chapel Hill found that increases in the use of combination antiretroviral drug therapy during pregnancy, and elective C-sections produced a correlated reduction in HIV transmission during childbirth, compared to the previous 4 years. The study focused on infants born to HIV-infected mothers in North Carolina between January 1, 1998, and September 30, 1999. The scientists are unclear whether the benefit is due to combination antiretroviral therapy, or to an additional effect of elective C-section. They also wanted to know what drugs pregnant, HIV-infected women were taking, because mothers had used 15 different combination regimens in 1998, and 10 in 1999. Combination antiretoviral therapy involving AZT, 3TC, and nelfinavir was the most common last year. While evidence of its safety is sparse, the researchers have not seen any untoward effects in mothers or babies. The researchers refer to studies that show that the higher the mother's viral load, the more chance of transmission to the baby, so the goal must be to reduce the load, best accomplished by combination antiretroviral therapy.

Lowest birth-weight, premature infants may face physical and mental deficits, found Canadian researchers who followed up 170 "preemies" born between 1977 and 1982 to determine long-term outcome. Results indicate that extremely premature babies, born up to 3 months early with a weight of less than 2.2 pounds, often have nerve damage and academic problems later in life.

The results of an earlier follow-up by these scientists indicated that the preemies were displaying learning problems at 8 years of age. The current study followed up on 150 children from the group, now ages 12 to 16 years old. Physical deficits in some form of nerve disorder, such as hearing and eye problems, showed up in nearly 30% of the children.

The group also displayed mental deficits, scoring about 13 points worse on intelligence tests, and were 9 times more likely to repeat a grade than children with normal birth weight. Additionally, the group showed a decline in math aptitude over time.

Dr. Saroj Saigal, a pediatrician at McMaster University in Hamilton, Ontario, and lead author of this report, believes that the results could help in decisions about intensive care for premature infants.

Premature delivery—before 37 weeks of gestation—accounts for 11% of all U.S. deliveries, a number recently increased from the use of fertility treatments.

The report can be found in the February issue of *Pediatrics*.

Leading organizations unite to form a new alliance, From Awareness to Action: The National Alliance to Reach Blood Pressure Goals, with the mission to reverse stagnant high blood pressure control rates.

The American Osteopathic Association joins 23 other health organizations in a commitment to bring national attention to and find solutions for this life-threatening condition that affects more than 50 million Americans. The Alliance will develop a series of intervention programs and promote patient-provider dialogue to reduce the rates of death and disability caused by complications of high blood pressure.

High blood pressure is the leading risk factor for heart attack and stroke, among the three highest causes of death in the United States. Though the condition can be successfully controlled, current control rates are no longer improving.

For more information about From Awareness to Action: The National Alliance to Reach Blood Pressure Goals, visit their Web site (*www.fromatoa.org*) or call 888-568-0408. ◆