

Heart Disease Plus Arthritis Equals Inactivity

BY SHERRY BOSCHERT

More than half of adults with heart disease also had arthritis, and they were 30% more likely to be physically inactive than were those with heart disease alone, in a survey of 757,959 Americans.

The Centers for Disease Control and Prevention analyzed data from all 50 states in the 2005 and 2007 Behavioral Risk Factor Surveillance System. In telephone interviews, 3% of respondents said they had been diagnosed with heart disease alone, 23% reported a diagnosis of arthritis alone, 4% said they had both heart disease and arthritis, and 70% had neither condition.

Arthritis was present in 57% of the respondents with heart disease, compared with 27% of the total population, J. Bolen, Ph.D., and associates reported (MMWR 2009;58 [No. 7]:165-9).

People with heart disease and arthritis had the highest rate of inactivity—29%—compared with rates of 21% in people with heart disease alone, 18% in people with arthritis alone, and 11% in

those who had neither heart disease nor arthritis, reported Dr. Bolen of the CDC's National Center for Chronic Disease Prevention and Health Promotion, division of adult and community health.

After adjustment for the effects of age, sex, race or ethnicity, education level, and body mass index, inactivity was 30% more likely in those with heart disease and arthritis, compared with people who had heart disease alone.

Physicians might better address the effects of heart disease and arthritis by integrating interventions for these co-occurring conditions, the investigators suggested. Efforts to help patients become more physically active could benefit those with one or both conditions by improving physical function and lowering blood pressure and LDL-cholesterol levels, they wrote.

Some specialized educational interventions such as the Chronic Disease Self Management Program and the Arthritis Foundation Self-Help Program can help people with arthritis increase physical activity and manage pain. Exercise programs that are appropriate for adults

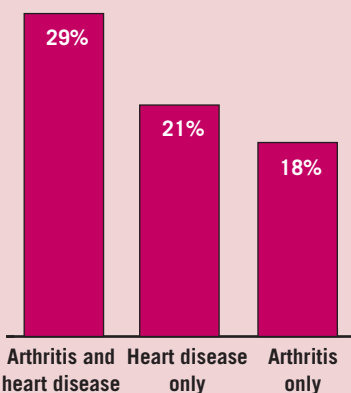
with heart disease and arthritis include EnhanceFitness, the Arthritis Exercise Program, and the Arthritis Foundation Aquatics Program, wrote Dr. Bolen and colleagues. Self-directed low-impact activities such as walking, swimming, and biking also can be appropriate for people with both heart disease and arthritis.

Previous research suggests that people with arthritis may have greater pain initially when they start to exercise, but continued exercise reduces pain symptoms in the long term.

The risk of having one or both conditions increased with age. Men had a higher prevalence of heart disease alone (4%) or heart disease plus arthritis (4%) compared with women (2% and 3.5%, respectively). Women were more likely to have arthritis alone (27%) compared with men (19%). Whites were more likely than were blacks to have one or both conditions. Each of these comparisons between subgroups was significant.

The Behavioral Risk Factor Surveillance System did not collect data for arthritis and heart disease in all states in 2006, so the investigators focused on

Physical Inactivity by Disease Status



Note: Based on a telephone survey of 757,959 adults.
Source: MMWR

2005 and 2007 data. This study, which supports the results of previous analysis, is the first to use a national population-based sample to quantify the relationship between inactivity and heart disease, arthritis, or both. ■

Screening at Health Fairs Could Help Identify Early RA

BY DENISE NAPOLI

The combination of the connective tissue diseases questionnaire plus rheumatoid factor and anti-cyclic citrullinated peptide antibody positivity had a 95% sensitivity and 32% specificity for identifying people with at least one swollen joint at free community health fairs.

The study, presented at the Western Regional Meeting of the American Federation for Medical Research, is one of few to examine rheumatoid arthritis (RA) screening techniques in the community health fair setting, where more prevalent conditions, such as diabetes receive more attention.

A total of 601 participants were screened at five health fair sites in the greater Denver area administered by the nonprofit 9Health. The researchers administered the 30-item connective tissue diseases questionnaire (Ann. Epidemiol. 1995 Jul;5:297-302) as well as blood tests for rheumatoid factor (RF) and anti-cyclic citrullinated peptide antibody (anti-CCP). Patients also had a joint examination by a rheumatologist who was unaware of the assay and questionnaire results.

The 601 patients who elected to undergo RA screening represented 16% of the total fair attendees, and more than half

said they sought RA screening because they had joint symptoms. A television and Internet ad campaign in the region prior to the fairs helped to raise public awareness about RA symptoms and risk factors.

A total of 84 people (14%) had one or more swollen joints that would be consistent with possible inflammatory arthritis, according to Dr. Kevin Deane, the principal investigator on the study. "Of those individuals with one or more swollen joints, nine met at least four ACR criteria for RA but never had a prior diagnosis," he said.

"An additional 15 people had a swollen joint and RF or CCP positivity, but met fewer than four ACR RA criteria. They may have early RA," he added. And another 41 people had either RF or anti-CCP positivity but didn't have any arthritis. "So something is going on immunologically, but no arthritis yet," said Dr. Deane of the division of rheumatology at the University of Colorado, Denver.

The cost of the screening effort is \$42 per person. The RF and anti-CCP assays were paid for by Abbott Laboratories, Inc., which was a cosponsor of the fair, along with Quest Diagnostics and GE Healthcare. The authors disclosed no relevant conflicts of interest. ■

Comorbidities Add Significantly to Health Care Costs for RA Patients

BY DENISE NAPOLI

Rheumatoid arthritis patients with comorbid depression and/or cardiovascular disease accumulated thousands more dollars in annual health care costs than did their peers with RA alone.

This finding is based on a study of over 10,000 people with rheumatoid arthritis conducted by Amie T. Joyce of Pharmetrics Inc., Watertown, Mass., and her associates.

"We are seeing increasingly that inflammation [is present in] many chronic diseases and, thus, it is impossible to separate out specific illness costs perfectly. The true costs are borne by people with comorbidity. When [other] studies exclude those with comorbidity, they exclude large fractions of the population," said Edward H. Yelin, Ph.D.

Depression is also "rampant" in RA, "maybe two to three times higher than one would expect based on age and gender," added Dr. Yelin, professor in residence of medicine and health policy in the division of rheumatology at the University of California, San Francisco. Dr. Yelin was not involved in the study.

Dr. Joyce's study looked at 10,298 RA patients culled from

Pharmetrics Inc.'s patient-centric database from Jan. 1, 2001 to Dec. 31, 2005. The database contains medical and pharmaceutical claims from 92 health plans across the United States. To be included in the study, patients had to be aged 18 years or older, have a diagnosis of RA, and have undergone treatment with a disease-modifying antirheumatic drug or biologic agent.

Of the sample, 8,916 patients had RA alone (86.6%), 608 had RA with CVD (5.9%), 716 had RA with depression (6.9%), and 58 patients had all three conditions (0.6%).

"Compared with patients with RA alone, patients with RA and depression, CVD, or CVD plus depression experienced significantly and progressively higher overall annual unadjusted healthcare costs," wrote the authors. In fact, the annual cost for patients with RA alone was \$14,257, vs. \$21,410 for patients with RA plus depression, \$24,444 for patients with RA plus CVD, and \$35,246 for patients with all three conditions.

Interestingly, patients with RA plus depression had higher annual RA-specific costs than did patients with RA alone (\$9,940 vs. \$9,322; $P = .014$), and the RA-specific costs increased even

more in patients with all three conditions, to \$12,318 ($P = .012$). That effect was not seen in the RA plus CVD group (J. Rheumatol. 2009 Feb. 15 [doi:10.3899/jrheum.080670]).

The increased costs were, in part, the result of higher hospitalization rates. Just 7.9% of patients with RA alone had a hospital stay in the 12 months prior to their "index date" (the date of the patient's first claim with an RA diagnosis).

In the RA plus CVD cohort, this jumped to 34.9%. In the RA plus depression cohort, it was 18.6%, and among the patients who had all three diagnoses, 60.3% were hospitalized during that 12-month period. (For all rates, P was less than .001).

The average number of prescriptions filled also increased with increasing comorbidities. RA-only patients filled an average of 46.8 prescriptions in the 12 months following RA diagnosis, compared with 69.2 in the RA plus CVD group, 71.3 in the RA plus depression group, and 114.3 in the RA plus depression plus CVD group.

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