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The full report is titled “Effect of Glucosamine Sulfate on Hip Osteoarthritis. A Randomized Trial.” It is in the 19 February 2008 issue of *Annals of Internal Medicine* (volume 148, pages 268-277). The authors are R.M. Rozendaal, B.W. Koes, G.J.V.M. van Osch, E.J. Uitterlinden, E.H. Garling, S.P. Willemsen, A.Z. Ginai, J.A.N. Verhaar, H. Weinans, and S.M.A. Bierma-Zeinstra.

Glucosamine Sulfate to Treat Hip Osteoarthritis

What is the problem and what is known about it so far?

Osteoarthritis is the most common type of arthritis in middle-aged and older people. It often occurs in large joints, such as the knees and hips. The pain may limit a person’s ability to get up from a chair, stand, walk, or climb stairs and tends to get worse with activity. Treatment aims to decrease pain and other symptoms and to keep people active. Treatments include drugs to decrease pain and inflammation; weight loss, if needed; physical therapy; and exercise. Unfortunately, these treatments do not always help, and some have side effects. Many people with knee osteoarthritis seek alternative treatments, such as glucosamine sulfate. Glucosamine sulfate is a natural substance that is found in healthy joint cartilage. Some studies suggest that glucosamine sulfate helps osteoarthritis, particularly that of the knee. Others studies have not shown a benefit. It is also not known whether glucosamine sulfate helps patients with hip osteoarthritis.

Why did the researchers do this particular study?

To see whether glucosamine sulfate is effective in treating hip osteoarthritis.

Who was studied?

222 patients from the Netherlands who had hip osteoarthritis.

How was the study done?

The researchers assigned patients to receive either 1500 mg of glucosamine sulfate or a placebo pill daily for 2 years. The placebo pill looked and tasted like the glucosamine pill, but it contained no active ingredients. The researchers reported patient outcomes at 3, 12, and 24 months after starting treatment. They collected information on patients’ pain and their ability to do their usual activities. They also did x-rays to measure the joint space in the hip, because as osteoarthritis gets worse, the joint space becomes narrower.

What did the researchers find?

Pain, ability to do normal activities, and joint space narrowing did not differ between patients who received glucosamine and those who received placebo.

What were the limitations of the study?

Twenty of the patients had hip replacement surgery during the study, which interfered with the researchers’ ability to measure patient outcomes.

What are the implications of the study?

Receiving 1500 mg of glucosamine sulfate daily for 2 years seems to offer no benefit in relieving pain, increasing the ability to do normal activities, or reducing joint space narrowing in patients with hip osteoarthritis.