

The effectiveness of glucosamine on arthritis patients essay sample

[Health & Medicine](#), [Hospital](#)



Abstract

Glucosamine, known for its effect on bone health, is used to treat Arthritis and decrease incidents of pain and swelling of bone cartilages. This paper intends to review study conducted on the subject and determine whether glucosamine, as applied in the treatment of arthritis, will be able to decrease pain and/or entirely eliminate pain.

Introduction

Glucosamine is a compound mineral that can be found in cartilages. This is a major component in the process of the production of healthy cartilages in the joints. This also prevents collagen from breaking down. Collagen is one of the two important protein needed in the joint so that all the tissues in a particular joint holds together. Glucosamine is also called as glucosamine hydrochloride, chitosamine, glucosamine sulfate, or N-acetyl glucosamine (Eustice & Eustice, 2007). Glucosamine are not easily obtained from foods. The glucosamine supplements that are out in the market are produced from the chitin. Chitin is a substance that can be found in shell foods like crab, lobsters and shrimps (Eustice & Eustice, 2007).

Glucosamine is being used to treat arthritis especially osteoarthritis (Eustice & Eustice, 2007). People that used glucosamine appears to have a relief in pain that they are experiencing and have an improvement in the motion of their joints. According to some studies, glucosamine also decreases the rate of development of the disease and decreases the further damage of the joints (Eustice & Eustice, 2007). Results of some research show evidence

through x-ray that glucosamine lowers down the rate of development or damage to the joint.

Glucosamine has also a contribution in having a healthy skin (“ Glucosamine “, 2007). Sufficient amount of glucosamine is essential for the production of hyaluronic acid. Hyaluronic acid is a chemical substance necessary in the healing process of the skin after an injury (“ Glucosamine “, 2007). Result of some studies shows that patients taking the supplemental glucosamine before and after their operation have a faster recovery period and fewer scars than those patients who did not take the glucosamine supplement (“ Glucosamine “, 2007).

There are also studies about the benefits of supplemental glucosamine with regards to the wrinkling of the skin (“ Glucosamine “, 2007). Since hyaluronic acid slower down the rate of production as individual grows older, it is being associated with the production of glucosamine that also decreases, as patient grows older. If the amount of glucosamine decreases, the hyaluronic acid also decreases which may produce wrinkling. So based on the results of some research, intake of supplemental glucosamine may help the skin more healthy regardless of the age of an individual (“ Glucosamine “, 2007).

More studies have been made about the other possible benefits of glucosamine. There had been a few studies about the n-acetyl glucosamine in relation to different bowel diseases such as ulcerative colitis and Crohn’s disease (“ Glucosamine “, 2007). According to the few studies made, n-acetyl glucosamine plays an important role in the production of mucus.

Researchers believe that this mucus that is lining the lower part of the gastrointestinal tract provides protection to this part (“ Glucosamine “, 2007). This result needs an additional research to strengthen the facts about the positive effects of glucosamine.

Although there are lots of benefits in taking supplemental glucosamine, there are still negative or side effects of taking this supplement. The most common side effects that can be observe in patients taking the glucosamine supplements are sensitivity to the sun, stomach upset, hardening of the nails, skin allergies, drowsiness, headache and insomnia (“ Glucosamine “, 2007). There are rare cases of side effects like loss of appetite, heartburn and diarrhea, pain in the abdomen, vomiting, constipation and nausea (“ Glucosamine “, 2007). In some reported cases, taking glucosamine supplements adds to the risk of increasing heart rate and blood pressure, and increased protein amount in the urine. Pregnant women and breastfeeding mother are not recommended to use glucosamine supplements because of lack scientific studies that proves that they are safe to use this supplements (“ Glucosamine “, 2007).

Osteoarthritis

Osteoarthritis (OA) is a degenerative joint disease. This is the most common form of arthritis. OA affects any joint in the body but the most commonly affected joints are the spine, hips, knees and hand (Hicks & Gerber, 1993).

The symptoms of osteoarthritis worsen through time. The following signs and symptoms can be observed on patients suffering from osteoarthritis: a) joint

pain during and after an activity or even in inactive state of the joint; b) remarkable stiffness of the joints especially in the morning or after a long period of inactivity; c) decreased joint mobility; d) tenderness of the joint after the application of light pressure; e) formation of bone spurs around the affected joint; and f) swelling of the joint (in some cases) (Hicks & Gerber, 1993). In some rare cases, if there is too much repetitive motion or stress, OA can also affect the wrist or ankles, jaw, elbow and shoulder (Hicks & Gerber, 1993).

There is no scientific evidence to the real cause of OA but researchers believe that the possible causes are the combination of stress in the joint or joint injury, hereditary, weakness of the muscles, increased body weight and aging process (Hicks & Gerber, 1993).

The following factors increase the risk of an individual in having OA. First, females are more susceptible in acquiring OA although there is no scientific study to explain this. This is only based on the population or prevalence rate. Second, adult individuals especially those ages 40 and above have a higher rate of experiencing OA. Third, obesity that is linked to the stress placed on the weight-bearing joints such as the knees. Fourth, those individuals that experienced joint trauma like athletes that had sports-related injuries have a high risk of having OA. Fifth, are those people that have bone deformities have a high risk in experiencing OA. Lastly, are those people who already have bone or joint diseases (Hicks & Gerber, 1993).

Up to present, there is no specific treatment or cure for osteoarthritis (Hicks & Gerber, 1993). The medical interventions given to osteoarthritic patients only help to reduce pain and other symptoms and to continue functional joint mobility so that it will not hinder in the daily activities of a person.

Review of Related Literature

Glucosamine has been studied to give way for the possible cure or treatment for osteoarthritis. Glucosamine aids in the stimulation of repair and joint mobility. There were couples of studies conducted for the right dosage and medications in osteoarthritis. In 1982, a study was made to compare glucosamine with ibuprofen. In this study, they had prove the fact that glucosamine works as a pain reliever and has more relieving action than the ibuprofen but it works slower that the ibuprofen especially when there is already an inflammation (Rogers, 2007).

Another study in the year 1982 was made in Portugal were there goal is to look for the appropriate dosage or amount of glucosamine sulfate to be administered to different patients (Rogers, 2007). In the process of this study, 500 mg of glucosamine sulfate was given to patients three times a day. The result of this study has given a lot of contribution especially to the proper administration of dosage of glucosamine sulfate. In this study of glucosamine sulfate, they had conclude that high amount or dosage of supplement should be given to obese patients while those patients that have peptic ulcers or taking diuretics should be given glucosamine along with their food (Rogers, 2007).

A study in the osteoarthritis of the knee that was conducted in the year 1999 in Belgium revealed that patients that had taken the glucosamine had no narrowing joints or those who are already suffering from OA have an improvement in their condition. While those patients that are taking the placebo have narrow joints and are suffering from pain (Rogers, 2007).

Another study of the effect of glucosamine in arthritic patients has been conducted in the year 2000 at ASA Harofeh Medical Center (Rogers, 2007). Patients that joined in this study were treated daily for four weeks with the combination of glucosamine sulfate and 800mg of chondroitin. By comparing the result of this study with the result of the study conducted in the year 1982, there is a difference with the effect of glucosamine compare to the effect of combination of glucosamine sulfate and chondroitin. According to the study of the combination of glucosamine sulfate and chondroitin, pain is more reduce during an activity or even in non-activity level compare with the effect of glucosamine alone (Rogers, 2007). In this study, they concluded that long-term usage of glucosamine sulfate for the treatment of osteoarthritis is safe (Rogers, 2007).

The recent and most comprehensive study that has been made was the GAIT or the Glucosamine/Chondroitin Arthritis Intervention Trial. In February of 2006, the New England Journal of Medicine published the result of this study were in after 24 weeks of treatment of glucosamine hydrochloride, chondroitin sulfate and the combination of this 2 (" Glucosamine/Chondroitin Arthritis Intervention Trial (GAIT)", 2006). At the end of this study they concluded there is no difference in the outcome of the reduction of pain in

the knee with regards to the 20% reduction of knee pain which has been the result of the past researches (“ Glucosamine/Chondroitin Arthritis Intervention Trial (GAIT)”, 2006).

Conclusion

Osteoarthritis has been the most common problem of adults especially the older women. In spite of years of study on how to improve the knowledge and skills to treat osteoarthritis with the aid of glucosamine, the results are still the same. Glucosamine could not be considered as a specific treatment for osteoarthritis because it does not treat osteoarthritis, it only reduces pain and improve a bit of the condition of the patient suffering from osteoarthritis. Although there are lots of benefits that osteoarthritic patients get when they are using glucosamine supplements, there are also side effects that are sometimes hazardous to their health.

References

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