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FOUNDATION

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Vitamin B12 Against Bursitis Study

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Knowledge Medical Foundation,

Following please find the interim report for the "Vitamin B12 Against Bursitis" research study:

REVIEW

The purpose of the current study is to verify the observed clinical efficacy of treating acute and chronic bursitis using only vitamin B12 intramuscular injections. Concurrently, the study hopes to reveal a possible connection between bursitis and low stomach acid production.

STUDY ENROLLMENT & INITIAL TESTING

- There are 24 people enrolled in the Bursitis study to date, 17 women and 7 men.
- Ages of the participants range from 41 to 80 years old.
- The Heidelberg pH Test was performed on each of these participants in order to assess stomach acid levels.
- Thirteen people were shown to have some degree of low stomach acid, including three individuals who were shown to have no stomach acid whatsoever.
- The remaining eleven had normal levels.

PARTICIPANT UPDATE

Sixteen people have entirely completed the two month study, while the other 8 will finish up in the coming weeks.

- Fourteen out of the sixteen people who have finished the study reported a reduction in their bursitis pain after using the vitamin B12 injections.
 - Eight out of the sixteen reported they were "greatly improved"
 - Six of the sixteen reported "mild improvements"
 - Two people reported "no changes".

We are pleased to see that so many people responded so favorably to the treatment.

STUDY PARTICIPANTS OBSERVATIONS

The subjective reports from the participants correlated well with the objective measurements of joint range-of-motion and the standardized pain questionnaire. Those who reported the greatest improvements had also demonstrated the greatest improvement in joint range-of-motion measurements as well as the greatest improvement in the standardized questionnaire test scores. While those who reported no changes had the least improvements in joint range-of-motion measures and test scores.

- Nine out of the fourteen people who reported improvements from the vitamin B12 injections also had some degree of low stomach acid.
- The two people who did not respond to the treatment both had normal stomach acid.
- This result in itself suggests a connection between low stomach acid levels and bursitis.

Interestingly, no one has reported a bad effect from taking the B12 other than some mild soreness at the sight of injection.

OBSERVED TRENDS

There have been several trends observed in regards to serum laboratory tests in those who have completed the study.

- With only one exception, everyone who started the study with an elevated Erythrocyte Sedimentation Rate or ESR (a marker of general inflammation in the body) showed a beneficial reduction by the end of the study.
- Uric acid levels showed a beneficial decrease in almost all participants who began the study with an elevated uric acid test.
- Most individuals with an elevated total cholesterol level noticed a beneficial decrease by the end of the study.
- One woman with substantially elevated liver enzymes, AST and ALT, at the start of the study had a complete return to normal levels by the end.
- A few individuals showed a slight, and possibly insignificant, detrimental change in their hemoglobin A1C levels.
- One person showed a possible decrease in platelets at the end of the study, but this was most likely caused by a laboratory error.

ADDITIONAL BENEFITS

In addition to the benefits that we have noted for reducing and eliminating bursitis pain, there have been a number of other positive health changes that people reported.

- Many participants said that they felt more energy and less fatigue after taking the B12 injections.
- One woman noticed that her symptoms of asthma were improved.

- Several participants reported that their skin rash resolved, including one individual who said that his shingles cleared up while taking the vitamin B12.

SUBJECTIVE EXIT COMMENTS FROM PARTICIPANTS

Here are some subjective exit comments from the individuals who have completed the study:

- "I've improved tremendously."
- "I would like to continue taking the vitamin B12 injections because they work so well."
- "This is the greatest thing in the world [vitamin B12 against bursitis]."
- "This is a wonderful solution and I hope that more people find out about this."
- "My overall mobility is less restricted, and my wife comments that I am more easy-going."

We are still vigorously promoting the Bursitis Study with the intent of recruiting new participants. Our hope is to enroll a total of 30 individuals and have them complete the study before the end of the year 2010.

Sincerely,

Investigators

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