

REPORT TO:	Mr. Gordon McKenzie, Study Coordinator
REPORT FROM:	Dr John Rideout
SUBJECT:	TENEX® ESA

MEDICAL REPORT AND ASSESSMENT OF TENEX® ELBOW SHOCK ABSORBER

The project purpose was to study and assess the efficacy of the TENEX® ELBOW SHOCK ABSORBER (ESA) on lateral (tennis elbow).and medial epicondylitis (golfers elbow).

QUALIFICATIONS

Dr. J. Rideout: B.Sc. University of British Columbia, 1969 M.D.. CM - McGill University, 1973
Certification, Canadian College of Family Practice, 1982 Organizing
physician for the 1987 Federation Cup, Vancouver, B.C.
Physician for the Davis Cup - Canada vs. Chile, 1988 Physician for the
Schmirnoffs Satellite Circuit Tournaments, Vancouver 1986. 1987 and 1988
Physician for the Chipwich National Junior Tennis Championships, 1987
Active club tennis player and previously ranked in Provincial A's, Provincial
B's and Provincial 35's

REVIEW OF DATA

Test the TENEX® ESA. 26 subjects were selected to be involved in the study. These players ranged in age from mid-twenties to over 65 years old, The average age was approximately 45 years old. These players were all club level players and none of the players involved had symptoms suggesting acute epicondylitis. Specific injury information determined prior to the use of TENEX ESA determined that 18 of the 26 players had classic symptoms suggestive of a lateral epicondylitis (tennis elbow), 6 players had symptoms suggestive of a medial epicondylitis (golfers elbow) and 9 players had tenderness within the forearm area. Most players had symptoms suggestive of a chronic, recurrent type of injury with elbow discomfort which usually increased with frequency and duration of tennis playing. Pain was noted to be of a moderate nature and had been experienced on average approximately three to four years, Most of the players had tried a variety of therapeutic modalities ranging from cortisone injections to various forearm orthotics to massage therapy and acupuncture as well as physiotherapy, ice, rest, and exercise. It is of some interest that only 8 of the 26 players carried on an exercise program with 10 never carrying on any exercise program at all and 9 with only occasionally following an exercise program. It is certainly clear that regular exercise and well defined exercises to increase both strength and range of motion are important adjuncts to treatment of tennis elbow.

LABORATORY STUDIES:

Objective laboratory assessment was carried out by Mr. Bill Reichelt, Head Trainer for the B.C. Lion's Football Club. This assessment was carried out at the Training Centre on a Cybex II isokinetic system and a Takei grip dynamometer. Studies were carried out prior to the use of the TENEX® ESA. Studies were then carried out at the completion of four weeks use of the TENEX ®ESA.

SUJECTIVE TESTING

Subjective testing consisted of questionnaires. All 26 players filled out these prior to and after the four week testing period. To tabulate responses by players and apply a statistical basis to this, an adaptation of the Semantic Differential Scaling technique was used. Respondents found that the usual increase in pain at the elbow area associated with an increase in tennis intensity and duration played was not occurring. In short, they found an overall improvement in pain intensity and frequency. The questionnaire was also completed which compared various other orthotics to the TENEX® ESA. These indicated less discomfort with TENEX as opposed to the wrap-around Velcro and gel bands. As well, respondents indicated progressive decrease in pain over the four weeks that the TENEX® was worn.

CONCLUSIONS:

TENEX® ESA was tested over a four week period on 26 club level tennis players. The majority of players showed a measurable improvement in strength and power and an improvement in the frequency and intensity of the pain associated with tennis elbow. This improvement applied both to lateral epicondylitis and to medial epicondylitis. (tennis elbow & golfers elbow)

It is my belief that the TENEX ESA significantly reduces the vibration caused by the tennis racquet and transmitted to the forearm and shoulder. As a result there is a decrease in micro trauma to these areas and therefore a decrease in pain. Consequently, there is a reduction in pain inhibition and an improvement in both strength and power may be observed- I would conclude that from the data presented, the TENEX® ESA is a promising new concept in tennis elbow orthotics capable of reducing the frequency and intensity of the pain of tennis elbow (both lateral epicondylitis and medial epicondylitis) in the club player.

Yours sincerely,

A handwritten signature in black ink, appearing to read "J. Rideout", with a large, stylized loop at the beginning.

John A. Rideout, B.Sc., M.D., CM. C.C.F.P.

January 2000