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EASE OF PAIN AND DISABILITY IN ELDERLY PATIENTS
WITH DEGENERATIVE OSTEOARTHRITIS OF THE KNEE
TREATED BY NARROW-BAND LIGHT THERAPY

(ABSTRACT)

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This work deals with two treatment methods for Degenerative Osteoarthritis (DOA) of the knee. One is the conventional Physiotherapy and the other is the 940nm Light Knee Illumination, combined with conventional Physiotherapy.

The purpose of the conventional Physiotherapy for DOA of the knee is to ease pain of the joint and improve daily activities by retaining motion and preventing functional disability. It is combined with conventional Electro-Therapy treatment, such as short waves etc., and with anti-inflammatory drug treatment.

In this work we examine an additional treatment, which is the illumination of the knee-joint by a BioBeam 940 instrument, developed and marketed by Amcor company. We also compare the results of this method with those of the one using Physiotherapy only.

The attempt to test the efficiency of the Bio-Beam method, was motivated by the wish to find an additional treatment, to help ease chronic pain and functional disability in patients who suffer from DOA of the knee.

As Amcor's advertisement stated that "this instrument can ease inflammatory joints", it was decided to carry out a research on patients suffering from DOA of the knee at the Shmuel Ha'roffe Hospital.

A comparative research was carried out on thirty patients suffering from DOA of the knee, who visited both the Joints Clinic and the Geriatrics Follow-Up Clinic of Shmuel Ha'roffe Hospital.

One group of patients was treated by Physiotherapy only, whereas the other received both BioBeam treatment and Physiotherapy, identical to the one given to the first group.

Each group received six treatments, three times a week for a fortnight.

It was a "Single Blind" research, where only the therapist knew who belongs to which group.

Simultaneously with the treatment, a series of evaluations was conducted. The first evaluation was made at the patients' reception, the second a week later, the third two weeks later and the fourth evaluation, which was a check-up test, was made a month later.

Both the treatment and the evaluations were carried out by the same physiotherapist.

Three types of measurements were carried out:

1. Measurements of the range of motion of the knee;
2. Measurements of subjective pain;
3. Measurements of daily functions.

Results had shown a significant improvement in both groups during the treatment itself. But this improvement retained for a month after the check-up test, only by the group receiving both BioBeam illumination and Physiotherapy, whereas the group treated by Physiotherapy only, had shown regression to almost pre-treatment state.

The research recommendations suggest that further research be carried out with larger samples and on joints other than the knee.