



“EFFECT OF LEG MASSAGE AND STRETCHING ON RECOVERY FROM HIGH INTENSITY BICYCLE ERGOMETRIC EXERCISE ”

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ABSTRACT

BACK GROUND AND OBJECTIVES : Find out whether leg massage and stretching has a better effect on high intensity cycling exercises in athletes.

METHODS : A sample of 30 subjects selected divided in to two groups one is experimental group and other is control group by random sampling . Two groups were assessed pain , flexibility ,strength before and after the exercise session .

RESULTS :The results were analysed during paired t -test. The pre and post values were compared separately with in control group and experimental group.

KEY WORDS : High intensity cycling exercise ,stretching ,massage.

To find out whether of leg massage or stretching has a better effect on high intensity cycling exercise in normal athletes.

Hypothesis:

Stretching gives significant decrease in pain of calf muscles than the massage and stretching gives early recovery of pain in the experimental study of exercise program.

Materials used :

- Bicycle ergometer
- Powder
- Pillows
- Couch

Duration : 4weeks

Population : College going students of age 19 to 25 years.

Sampling : Random Sampling

Variables: Independent massage , stretching. Dependent – pain

Inclusive criteria :

Healthy students of Age between 19 to 25 years, (Male students)

Exclusive criteria :

- Female students
- Musculoskeletal problem
- Neurological problems
- Cardiac problems

METHODOLOGY

A sample size of thirty subjects were selected from VIMS college of Physiotherapy in age group of 18 to 25 years , only mat subjects for the study. According to the random sampling procedure subjects were assigned into 2 groups one to experimental group and other to control group.

Step 1

Subjects were instructed not to exercise heavily 24 hours before the study.

Step 2

A pre-set assessment of pain (flexibility strength, cardiovascular, system and functional assessment)

Subject is a comfortable position thorough explanation of the purpose and expectation of the study.

Step 3

5 min. of warm up period given to the subjects (walking, active stretching etc.)

Step 4

- High intensity cycling exercise demonstrated the subject.
 - 30 sec. Bouts of high intensity of cycling on cycle ergometer and 30 s Recovery.
 - Same Procedure is followed for six sessions then we progress to 20 min. of cycling exercise followed by 5 min. of rest.
- Post set assessment of pain is to be taken Results:

The results were analysed using paired t —test

The pre and post values for vas were compared separately Within control as well as experimental group by using paired t —test

They showed that there is significant improvement in post-test vas when compared to pre-test values .Again, the significance of results was calculated between post-test values of control and experimental groups by using the same paired t-test. There is significant improvement in post-test values in experimental group than . post-test values of control group.

DISCUSSION

Based on T" values it could be seen that there is significant difference between experimental and control group.

Comparing mean deviation standard deviation and T values of pain that there is significant difference between experimental and control group.

According to Bandy Etal 30 to 60 sec, Stretching is more effective compared to 15 sec. Of stretching program.

It should be remembered that study was conducted followed by rest it gives more reductions pain in the normal population.

Though the mean improvement of stretching was more effective than the massage for cycling exercise is normal subjects. So, it can be concluded that null

hypothesis is rejected and then alternate hypothesis is accepted. Thus, there is significant pain relief of calf muscles due to stretching.

LIMITATIONS

- 1.Small sample size
2. Lesser duration of massage
- 3.Increasing the sample size
- 4.Increasing the duration of the massage

