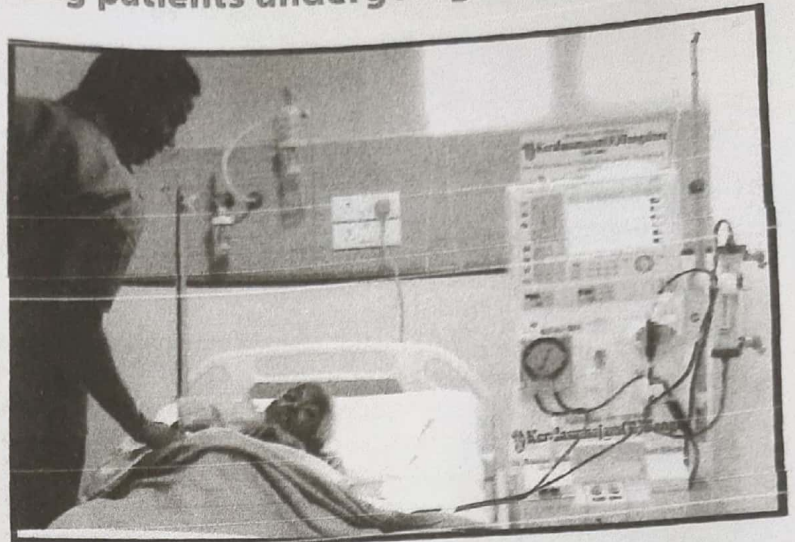


Assessing effectiveness of intradialytic stretching exercise on leg muscle cramps among patients undergoing haemodialysis



Rashmi Chavan * and Bincy Jobi**



Haemodialysis is a life saving measure for patients with chronic kidney disease. It is an ongoing process where patients experience complications such as hypotension, muscle cramps, disequilibrium syndrome and nausea during the procedure.

Chronic kidney disease (CKD) has been increasingly recognized as a global health burden. Individuals with CKD are at risk for progressive loss of kidney function and kidney failure.

One of the most common treatments for kidney failure is haemodialysis. Worldwide statistics shows that 9, 20,600 people are undergoing haemodialysis per day, which constitutes about 7-8% of the total population.

Holley (2012) stated that muscle cramps (involuntary muscle contraction associated with severe pain) occur frequently in patients receiving dialysis. It is estimated that 33% to 86% of patients receiving hemodialysis have experienced muscle cramps. Muscle cramps can

involve the legs, most commonly in the feet, but can also involve arms and hands, as well as abdominal muscles.

Since cramps are a common intradialytic event, the discomfort leads to premature termination of the treatment, noncompliance with the prescription and therefore under dialysis. Thus interfering with the muscle cramps and even preventing the occurrence becomes a major responsibility of the patients.

Since nurses are taking care of hemodialysis patients almost everywhere, it becomes predominantly the nurses' role. Magda Mohamed et al., conducted a study at Assiut University, Egypt on impact of stretching exercise protocol on reduction of muscle cramps during hemodialysis among CRF patients. Thus the investigator provided passive stretching exercise effective to relieve muscle cramps during hemodialysis session.

Statement of problem

A study to assess the effectiveness of

intradialytic stretching exercise on leg muscle cramps among patients undergoing hemodialysis in selected hospital in Mumbai.

Objective of the study

1. To assess the incidence of muscle cramps in patients undergoing hemodialysis.
2. To assess the effectiveness of intradialytic stretching exercise on muscle cramp in patient undergoing hemodialysis.
3. To identify association between demographic data and incidence of muscle cramps in patients undergoing hemodialysis.

Research approach: In this study, research approach was qualitative approach.

Research design : The research design used here was one control group and experimental group.

Population: The population of the study consisted of patients of the AKD unit of the K. J Somaiya Hospital.

*Clinical Instructor and **Clinical Instructor, K.J.Somaiya School and College of Nursing, Mumbai.

Criteria for sample selection

Inclusion criteria

- 1) Patients with hemodialysis for 4 hours.
- 2) Patients who were willing to participate in the study.

Sample and sampling technique

The sample of the study was divided into experimental and control group. The random sampling technique selection was done. Total 38 samples were taken.

Sample size: Samples are more representative of the population of interest than sample size. The sample size for this study was 38 hemodialysis patients.

Tool

Tool was constructed according to the objectives of the study.

Section 1 – Demographic tool and questionnaire

Section 2 – Plan teaching

Data analysis

The data obtained from 38 patients was analyzed by using the descriptive and inferential statistics as follows:

Personal information was analyzed using descriptive statistics such as frequency and percentage.

Effectiveness of intra dialysis stretching exercise reduction of cramps was analyzed by using pair 't' test.

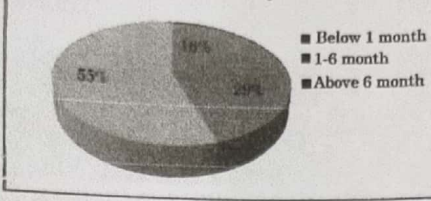
Cramps score of patients with association between selected demographic variables by using chi – square test

Significant findings

Demographic data: Distribution

of patients according to the dialysis started

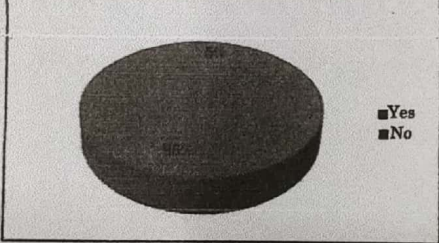
Frequency and percentage distribution of patients according to the dialysis started



Majority of the patients (55%) selected for the study were on dialysis for more than 6 months and 29% had started around 1 – 6 month whereas 16% patients had started around 1 month or less than 1 month.

Distribution of patients according to practice of leg exercise

Frequency and percentage distribution of patients according to practice of leg exercise



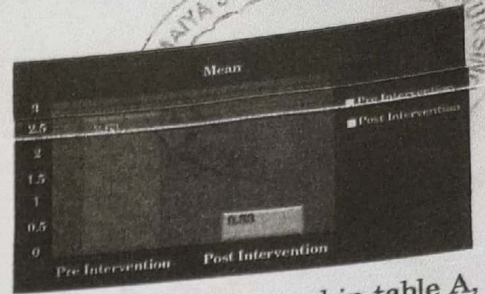
Majority of the patients (95%) did not practice the leg exercise. Only 5% of sample were performing some kind of leg exercises.

Comparison of subject in relation effect of intradialytic stretching exercise on leg cramps level pre-intervention & post-intervention

N=19

Variable	Experiment	Mean	SD	SEM	SED	Calculated T Value
Pre Intervention		2.63	1.06	0.27		
Leg Cramp					0.315	0.7980
Post Intervention		0.53	0.70	0.16		

Level of significant was 0.05, DF 18 t (18) table value was 2.10.



From the data presented in table A, it is evident that the intervention mean (2.63) of leg cramps is significantly higher than the post intervention mean (0.53) of leg cramp indicating reduction in the incidence of leg cramps. Also calculated of t (9.7980) is more than the table value t₁₈ 2.10 at 0.05 level of significant. Therefore null hypothesis is rejected and the research hypothesis is accepted. Hence the intervention of intradialytic exercise is reducing the level of cramps .

Recommendations

On the basis of the findings of the study, it is recommend that,

1. The intervention of intra dialysis exercise could be clubbed with other muscle relaxation technique.
2. In-service training programme about intra dialysis exercise pressure should be designed for nurses .This should provide them knowledge regarding various methods to reduce muscle cramp and discomfort for patients undergoing dialysis and improve the quality.
3. The study can be replicated with larger samples for better generalization.
4. The study can also be done for peritoneal dialysis patients.
5. The study can be conducted in different settings with similar facilities.
6. This study can be done as a longitudinal study.

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