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Efficacy of a structured exercise program on deep gluteal pain due to prolonged sitting

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ABSTRACT

Background: The aim is to plan a structured exercise program for deep gluteal pain caused due to prolonged sitting.
Deep gluteal syndrome is an increasingly recognized disease condition. Nonsurgical treatment options such as physical therapy, rest, and injections are the most common
The management of DGS without surgery is not well. DGS's complexity, which includes musculoskeletal, psychological, and social components, may necessitate a multi-professional approach to understanding and therapy. The primary goal of this research is to show that Deep Gluteal Syndrome can be managed without surgery.
Method: 80 individuals were approached and screened, out of which 62 were selected according to the inclusion criteria. The procedure was explained and written informed consent was taken. Demographic information was. The data collection sheet consists of the informed b consent form in English and Marathi, the patient information sheet, consent forms in English and Marathi. collection sheet consists of participants demographic data and then the Patient Specific Functional Scale which is filled by the therapist. The pre and post intervention total scores were calculated by adding the readings and dividing them by the total number of activities. The pre and post total scores were subtracted and if the differences were equal to or greater than 2 then that is considered a detectable change. All the data was entered into a database on Microsoft Excel, Microsoft Word.
Results: The study shows that there is a 98% of improvement. This proves that a structured exercise program is certainly effective on deep gluteal pain caused to prolonged sitting.
Conclusions: On the basis of the results of this study, there was a 98% of improvement in the individuals pain and his/her ability to do activities of daily living. This proves that a structured exercise program is certainly effective on deep gluteal pain caused to prolonged sitting. Awareness can be also created to educate the community on the ill effects of prolonged sitting and having an inactive lifestyle. Thus, importance of an active and healthy lifestyle is enlighten upon that of an inactive and sedentary lifestyle.

Keywords: Deep Gluteal pain, prolonged sitting, non-surgical approach, patient specific functional assessment scale, structured exercise program

INTRODUCTION

Deep gluteal syndrome is an increasingly recognised disease condition produced by non-discogenic pelvic lesions compressing the sciatic or pudendal nerve. The deep gluteal syndrome is frequently misdiagnosed or misidentified as something else. An reliable diagnosis requires careful history-taking, a physical examination that includes provocation tests, an electrodiagnostic testing, and imaging.

Rest, avoidance of aggravating activities, medication, injections, and physiotherapy are some of the conservative treatments that can be used. Beyond the classic notion of piriformis syndrome, the deep gluteal syndrome expands our understanding of posterior hip discomfort caused by nerve entrapment.
DGS's complexity, which includes musculoskeletal, psychological, and social components, may necessitate a multi-professional approach to understanding and therapy.

The primary goal of this research is to show that Deep Gluteal Syndrome can be managed without surgery

METHODS AND METHODOLOGY

Approval for the study was obtained from the Protocol committee and the Institutional Ethical Committee of KIMSDU. 80 individuals were approached and screened out of which 62 were selected according to the inclusion criteria. The procedure was explained and written informed consent was taken from those willing to participate. Demographic information of the subjects was taken. The individuals were explained about the purpose of the study. Also, they were informed about the procedure. The was asked to identify 5 activities which were difficult to perform and asked to rate their current condition on a 11-point scale.

The entire treatment protocol was explained thoroughly and was supposed to be followed for a total of 3 weeks. After the intervention, the individual was again asked to rate their activities which they had prior mentioned, on a scale of 0 to 10.

The data collection sheet consists of the informed consent form in English and Marathi, the patient information sheet, consent forms in English and Marathi, and then the data collection sheet. The main data collection sheet consists of participants demographic data and then the Patient Specific Functional Scale which is filled by the therapist. The pre and post intervention total scores were calculated by adding the readings obtained by the individual and dividing them by the total number of activities. The pre and post total scores were subtracted and if the differences were equal to or greater than 2 then that is considered a detectable change which indicates a positive prognostic response. All the data was entered into a database on Microsoft Excel, Microsoft Word

Statistical Methodology

The computer software – Instat was used for the statistical calculations. P value - <0.001.

RESULTS

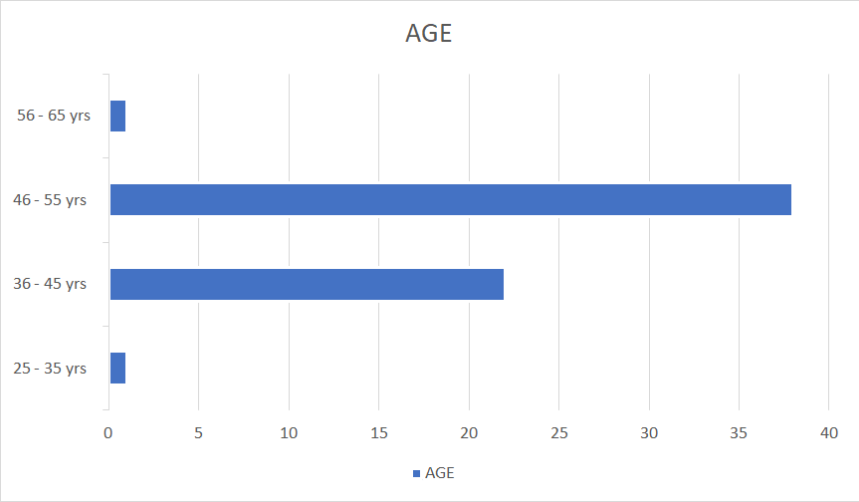


Chart 1: Age Wise

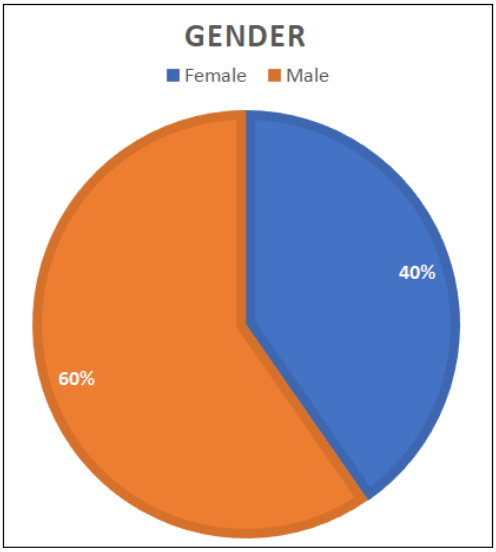


Chart 2: Gender Wise

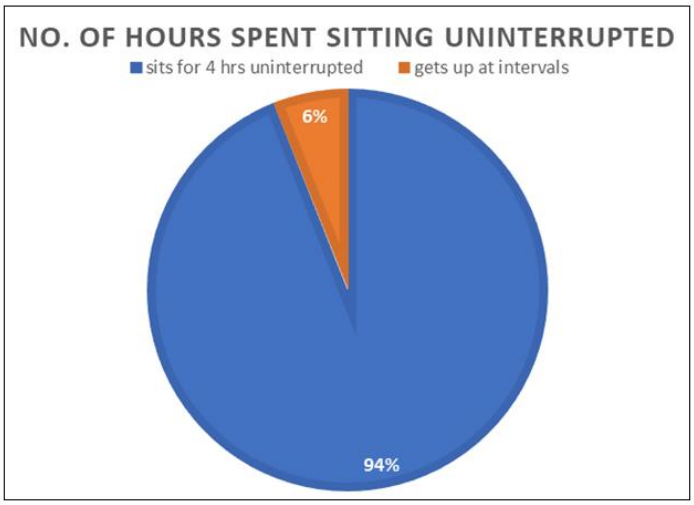


Chart 3: Hours spent sitting uninterrupted

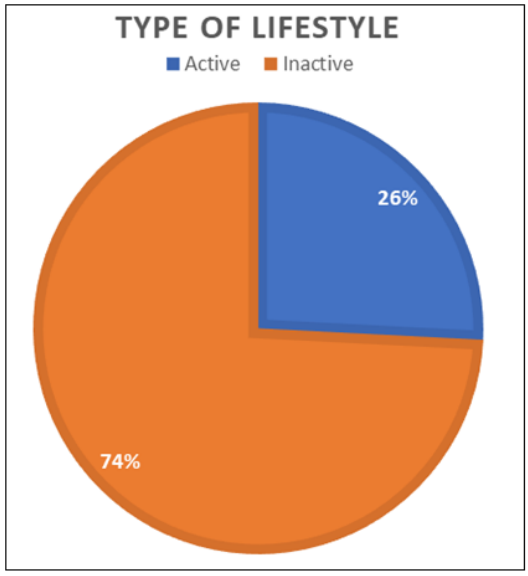
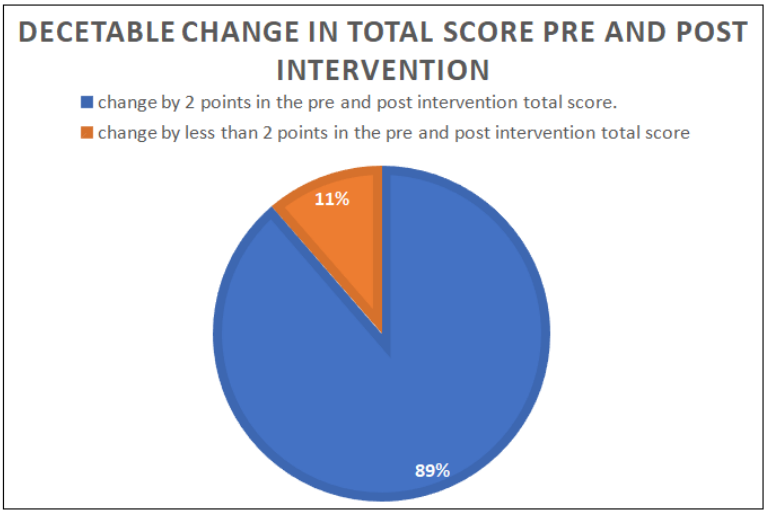


Chart 4: Type of lifestyle



***P* value = >0.0001**

Chart 5: Total score pre and post intervention

DISCUSSION

The aim of this study was to find out the effect of a structured exercise program on deep gluteal pain due to prolonged sitting. The objectives of this study were to assess individuals who experience deep gluteal pain, and also the severity of functional disability caused to the pain and/or discomfort. The other objectives included having an accurate diagnosis and so to plan a problem-specific structured exercise program for the individual. A total of 80 individuals were approached, from which 62 individuals of both genders were selected for the study according to the inclusion and exclusion criteria. Before starting with the intervention, the individuals demographic data was obtained and then they were assessed by using the patient specific functional scale. The total score was calculated by adding the scores given by the individual for the individual activities and dividing it by th total number of activities. A detectable change is when there is a difference of 2 or more than 2 points between the pre and post intervention total scores. Out of the 62 individuals, 55 individuals ie. 89% of the population had a difference of a detectable change in their pre and post intervention total scores, which means there was a 98% positive result from this study.

In Ricardo Gonçalves Schröder, Rob Roy L Martin, Valerie L Bobb, Anthony Nicholas Khoury, Ian James Palmer, and Hal David Martin's study an improvement was obtained in (100%) of the subjects with the combination of home exercises program, intra-muscular CT-Guided injection, physical therapy, and neuropsychiatric counseling. Average VAS scores decreased from 7.16 to 1.6, and average mHHS scores increased from 60.01 to 74. The average time in conservative therapy was 20 weeks4

CONCLUSION

On the basis of the results of this study, there was a 98% of improvement in the individuals pain and his/her ability to do activities of daily living. This proves that a structured exercise program is certainly effective on deep gluteal pain caused to prolonged sitting. Awareness can be also created to educate the community on the ill effects of prolonged sitting and having an inactive lifestyle. Thus, the importance of an active and healthy lifestyle is enlightened upon that of an inactive and sedentary lifestyle.

REFERENCES

1. Park JW, Lee YK, Lee YJ, Shin S, Kang Y, Koo KH. Deep gluteal syndrome as a cause of posterior hip pain and sciatica-like pain. Bone Joint J. May 2020;102-B(5):556-67. doi: 10.1302/0301-620X.102B5.BJJ-2019-1212.R1, PMID 32349600.
2. Martin HD, Reddy M, Gómez-Hoyos J. Deep gluteal syndrome. J Hip Preserv Surg. June 2015;2(2):99-107. doi: 10.1093/jhps/hnv029, PMID 27011826.
3. Gonzalez-Lomas G. Deep gluteal pain in orthopaedics: A challenging diagnosis. J Am Acad Orthop Surg. December 2021;29(24):e1282-90. doi: 10.5435/JAAOS-D-21-00707, PMID 34874333.
4. Outcomes of nonoperative management of deep gluteal syndrome – A case series of six patients 2016. Schröder, Ricardo Gonçalves.
5. Vij N, Kiernan H, Bisht R, Singleton I, Cornett EM, Kaye AD et al. Surgical and non-surgical treatment options for piriformis syndrome: A literature review. Anesth Pain Med. February 2021;11(1):e112825. doi: 10.5812/aapm.112825, PMID 34221947.
6. Horn KK, Jennings S, Richardson G, Vliet DV, Hefford C, Abbott JH. The patient-specific functional scale: psychometrics, clinimetrics, and application as a clinical outcome measure. J Orthop Sports Phys Ther. January 2012;42(1):30-42. doi: 10.2519/jospt.2012.3727, PMID 22031594.
7. A survey of physiotherapy practice. In: the United Kingdom for patients with greater trochanteric pain syndrome (2019) Stephens G, O'Neill S, French HP, Fearon A, Grimaldi A, O'Connor L, Woodley S, Littlewood C, editors; 2018.
8. Doley M, Warikoo D, Arunmozhi R. Effect of positional release therapy and deep transverse friction massage on gluteus medius trigger point-a Comparative Study. Journal of Exercise Science and Physiotherapy. June 2013;9(1). doi: 10.18376//2013/v9i1/67579.