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Six Minute Walk Test in Pre and Post Operative Assesment of Patient under Going Abdomen Surgery.

Dr. Vijay kumar[1], Dr. Ravi dosi[2], Dr. SatishMotiwale[3] ,Dr. Prakash Joshi [4]

Dr. Vijay kumar[1], Dr. Ravi dosi[2], Dr. SatishMotiwale[3] ,Dr. Prakash Joshi [4] 1.Dr Vijay kumar,post PGsenior resident

2 .Dr Ravi A Dosi, DTCD DNB [CHEST],AssosciateProfessor ,Dept Of Respiratory Diseases , SAMC & PGI , Indore MP

3.Dr. SatishMotiwale , HOD ,Dept Of Respiratory Diseases , SAMC & PGI , Indore MP

4.Dr. Prakash Joshi , Consultant , Dept Of Respiratory Diseases , SAMC & PGI , Indore MP

Corresponding Author:-DR VIJAY KUMAR

ABSTRACT

We took evaluation of two year duration amongs 174 patients enrolled . Distance walked in 6 min (6MWD) at 4 weeks after surgery is greater in young than older also greater after laproscopic surgery than open surgery, represent six minute wakl test as useful tool for assessment amongs these patients.

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I. INTRODUCTION:

The preoperative assessment is a key advance in distinguishing hazard factors for the improvement of these intricacies, which can be identified with the patient and to the arranged surgery. Tests, for example, spirometry and blood vessel blood gases are commonly utilized in the preoperative assessment of all patients qualified for lung resection, so as to survey the danger of entanglements and ascertain the leftover constrained expiratory volume in one moment (FEV1) to decide careful sign. In spite of the fact that FEV1 acquired by spirometry has been broadly utilized for this hazard stratification process, instances of expanded hazard may require extra tests, for example, lung dispersion testing (DLCO), and strategies to gauge leftover postoperative lung work, for example, scintigraphy and cardiopulmonary exercise tests.

Cardiopulmonary exercise testing is considered critical in distinguishing patients at more serious danger of complexities and mortality, and as per the European useful appraisal calculation, ought to be performed particularly when the anticipated FEV1 or DLCO are underneath 80%. In any case, its application is confined because of the restricted accessibility of the test, which has animated the scan for techniques to give comparable data that is likewise less difficult and more expense effective3.

Among the options, the progression test, the bus walk test, and the six-minute walk test (6MWT) have been studied. In spite of the agreeable outcomes found in the execution of these tests, a few identified with the strategies - particularly the control of activity force, the changeability of the outcomes, and dimension of proof - require an institutionalization and elucidation of the outcomes acquired by patients.

II. MATERIAL AND METHODS:

This study involved a sample of 174 patients enrolled in three previous randomized controlled trials. Construct validity was assessed by testing the hypotheses that the distance walked in 6 min (6MWD) at 4 weeks after surgery is greater

(1) in younger versus older patients,

(2) in patients with higher preoperative physical status versus lower,

(3) after laparoscopic versus open surgery,

(4) in patients without postoperative complications versus with postoperative complications; and that 6MWD

(5) correlates cross-sectionally with self-reported physical activity as measured with a questionnaire (CHAMPS). Statistical analysis was performed using linear regression and Spearman's correlation. The COnsensus-based Standards for the selection of health Measurement INstruments (COSMIN) checklist was used to guide the formulation of hypotheses and reporting of results.

STATISTICAL ANALYSIS;-
RESULT AND DISCUSSION:
-One hundred and fifty-one patients who completed the 6MWT at 4 weeks after surgery were included in the analysis.
-All hypotheses tested for construct validity were supported by the data. Older age, poorer physical status, open surgery and occurrence of postoperative complications were associated with clinically relevant reduction in 6MWD (>19 m).
-There was a moderate positive correlation between 6MWD and patient-reported physical activity (r = 0.46).

Open surgery

Laproscopic surgery	
Primary surgery	**150**
Secondary surgery	24
Intestinal obstruction	**60**
Perforation peritonitis	40
tubercular	30
septic	10
Trauma AND OTHERS	74

difference in six minute walk test in open laprotomy

	Walk distance
Pre op	315 metre
Post op	307 metre
	Completed test
Pre op	All
Post op	All

Difference in 6 MWT in laproscopic surgery

	6mw distance
Pre op	327 m
Post op	326 m
	Completed test
Pre op	All
Post op	All

III. CONCLUSIONS:

•This study contributes further evidence for the construct validity of the 6MWT as a measure of postoperative recovery after colorectal surgery.
• Results from this study support the use of the 6MWT as an outcome measure in studies evaluating interventions aimed to improve postoperative recovery.

CONFLICT OF INTEREST: None FUNDING INFORMATION :None

REFERENCES:

[1]. Kehlet H (2011) Fast-track surgery-an update on physiological care principles to enhance recovery. Langenbecks Arch Surg 396:585–590_
[2]. Feldman LS, Lee L, Fiore J Jr (2015) What outcomes are important in the assessment of Enhanced Recovery After Surgery (ERAS)

pathways? Can J Anaesth 62:120–130
[3]. Lee L, Tran T, Mayo NE, Carli F, Feldman LS (2014) What does it really mean to "recover" from an operation? Surgery 155:211–216_
[4]. Neville A, Lee L, Antonescu I, Mayo NE, Vassiliou MC, Fried GM, Feldman LS (2014) Systematic review of outcomes used to evaluate enhanced recovery after surgery. Br J Surg 101:159–170
[5]. Jones LW, Eves ND, Haykowsky M, Joy AA, Douglas PS. Car- diorespiratory exercise testing in clinical oncology research: systematic review and practice recommendations. Lancet On-col. 2008, 9(8): 757-765.
[6]. ATS statement: guidelines for the six-minute walk test. Am J RespirCrit Care Med. 2002, 166(1): 111-117.
[7]. Singh SJ, Morgan MD, Scott S, Walters D, Hardman AE. Development of a shuttle walking test of disability in patients with chronic airways obstruction. Thorax. 1992, 47(12): 1019-1024.
[8]. Fotheringham I, Meakin G, Punekar YS, Riley JH, Cockle SM et al. Comparison of laboratory- and field-based exercise tests for COPD: a systematic review. Int J Chron Obstruct Pulmon Dis. 2015, 10: 625-643.
[9]. Booth S, Adams L. The shuttle walking test: a reproducible method for evaluating the impact of shortness of breath on functional capacity in patients with advanced cancer. Thorax .2001, 56(2): 146-150.
[10]. Schmidt K, Vogt L, Thiel C, Jäger E, Banzer W. Validity of the Six-Minute Walk Test in Cancer Patients. Int J Sports Med. 2013, 34(7): 631-636.
[11]. 11. Granger CL, McDonald CF, Parry SM, Oliveira CC, Denehy L. Functional capacity, physical activity and muscle strength as- sessment of individuals with non-small cell lung cancer: a sys- tematic review of instruments and their measurement proper- ties. BMC cancer. 2013, 13: 135.
[12]. Moriello C, Mayo NE, Feldman L, Carli F. Validating the six-minute walk test as a measure of recovery after elective colon resection surgery. Arch Phys Med Rehabil. 2008, 89(6): 1083-1089
[13]. Portney LG, Watkins MP: Foundations of Clinical Research: Applications to Practice. Upper Saddle River: Prentice Hall. 2009.
[14]. von Elm E, Altman DG, Pocock SJ, Gotzsche PC, Vanden-broucke JP. Strengthening the reporting of observational studies in epidemiology (STROBE) statement: guidelines for re- porting observational studies. BMJ. 2007, 335: 806-808.
[15]. ATS & ACCP. ATS/ACCP statement on cardiopulmonary exercise testing. Am J RespirCrit Care Med. 2003, 167(2): 211- 277.
[16]. Oken MM, Creech RH, Tormey DC, Horton J, Davis TE et al. Toxicity and response criteria of the Eastern Cooperative On- cology Group. Am J ClinOncol. 1982, 5(6): 649-655.
[17]. Spencer LM, Alison JA, McKeough ZJ. Six-minute walk test as an outcome measure - Are two six-minute walk tests necessary immediately after pulmonary rehabilitation and at three- month follow-up? Am J Phys Med Rehabil. 2008, 87(3): 224- 228.