



Assessment and Effectiveness of Vitamin E levels based on COloRectal Evaluation of Clinical Therapeutics Scale (CORECTS) in Grade II and III haemorrhoids

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Abstract

Introduction: Haemorrhoids are also known as piles, is a very common anorectal condition which refers to the pathological changes/distal displacement of the haemorrhoidal tissue. There are 2 types of haemorrhoids internal and external based on the location/position. The symptoms of haemorrhoids are painless rectal bleeding, perineal irritation, anal itching, mild fecal incontinence, mucus discharge and/or perianal/rectal fullness.

Objective: The objective of the study is to assess and estimate the levels of vitamin E based on COloRectal Evaluation of Clinical Therapeutics Scale (CORECTS) in Grade II & III haemorrhoids.

Methodology: This was a prospective observational study. IEC and IFC were obtained prior to start of the study. Total of 30 patients were included in the study based on the inclusion and exclusion criteria. The patients were grouped into Group A (standard treatment) and Group B (standard treatment + Vitamin E). The CORECTS scale was assessed in both the groups to determine the effectiveness of Vitamin E at baseline and fifth week (after treatment).

Results & Discussion: Out of 30, males were 60% and age group 26-35 years 43.33%. The average CORECTS score before treatment was 41 out of 50 whereas after treatment was 9 out of 50. CORECTS score after treatment in Group A 11 out of 50 and Group B 7 out of 50.

Conclusion: The study concluded that the patients in Group B had better recovery of symptoms and improved quality of life using CORECTS Scale when compared to Group A.

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KeyWords: Haemorrhoids, CORECTS, prolapse, bowel movements, vascular.

DOI Number: 10.14704/nq.2022.20.8.NQ44709

NeuroQuantology 2022; 20(8): 6840-6844

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Introduction

Haemorrhoids are also known as piles, is a very common anorectal condition. These are normal vascular cushions surrounding the distal rectum and anal canal which helps to maintain anal continence(1,2). It refers to the pathological changes/symptomatic enlargement or distal displacement of the haemorrhoidal tissue(3,4,5,6). The evidence of haemorrhoids are inflammatory reactions(7) and vascular hyperplasia(8,9). The haemorrhoids are classified into 2 types based on the position related to the dentate line. If the haemorrhoids are located above the dentate line then, these are internal haemorrhoids. Similarly, if the haemorrhoids are located below the dentate line then, these are external haemorrhoids. Internal haemorrhoids, are further classified in 4 groups based on the intensity/severity of prolapse(10). In first grade - they do not prolapse but have prominent vascularity. In second grade, they prolapse during bowel movements or straining, but reduce spontaneously. In third grade, they prolapse but do not reduce spontaneously (manual reduction) and fourth grade, they are not reducible even after manipulation(11). It was widely believed that constipation and prolonged straining cause hemorrhoids. There are few studies which suggests that diarrhea is also a risk factor for the development of haemorrhoids(12). Dietary habits and sedentary life style like low fiber diet, spicy foods and alcohol intake are considered to be risk factors(13). Pregnancy can cause congestion of the anal canal but it usually resolves spontaneously after the child birth(14).

The most common symptom for haemorrhoids are painless rectal bleeding associated with bowel movement(8). Prolapsing haemorrhoids cause perineal irritation, anal itching, mild fecal incontinence, mucus discharge or perianal/rectal fullness(15,16) which are known to cause discomfort, disability and effects the quality of life. Pain is significantly less/not usually caused by haemorrhoids. The more common cause of anal pain in haemorrhoidal patients are due to anal fissure and perianal abscess. Haemorrhoids are diagnosed typically by physical examination(17). Visual examination of the anus and the surrounding area is done to diagnose

external and internal (prolapsing) haemorrhoids. Visual examination of internal haemorrhoids may require anoscopy(18). Rectal examination may be performed to detect the differential diagnosis like possible rectal tumors, polyps, an enlarged prostate, or abscesses(3). Management of haemorrhoids includes non-invasive medical approach (conservative) treatment and invasive medical approach (surgery)(19,20).

Aim and Objective:

The aim and objective of the study is to assess and estimate the levels of vitamin E based on COloRectal Evaluation of Clinical Therapeutics Scale (CORECTS) in Grade II & III haemorrhoids.

Materials and Methods:

The study was a prospective observational study which was carried out in Chennai private hospital for a period of 4 months. Before the start of the study IEC (VISTAS-SPS/IEC/VII/2020/06) and IFC were obtained. Inclusion criteria - patients from age 18 to 64 and exclusion criteria - patients below 18 or above 64, diagnosed with grade 1 and IV and patients using steroids/other pain medications. Based on the inclusion and exclusion criteria's, the patients were grouped in Group A and Group B with 15 each. The patients in Group A (n=15) received standard treatment and Group B (n=15) received standard treatment plus Vitamin E supplement (oral). The CORECTS scale was assessed and vitamin E effectiveness were determined at baseline and fifth week (after treatment). The obtained results were calculated using SPSS software and expressed in percentages.

Results and Discussion:

This prospective observational study was carried out for a period of 4 months in Chennai private hospital. A total of 30 patients were included in the study based on the inclusion and exclusion criteria's.

Among 30 patients, 18 were males (60%) and 12 were females (40%) which was shown in Table 1 and Figure 1. Out of 30 patients, 7 patients in 18-25 years of age, 13 patients in 26-35 years of age,



8 patients in 36-45 years of age and 2 patients were above 45 years of age as shown in Table 2 and Figure 2. Based on the result majority are males and age group from 26 to 35(21)

Table 1: Based on Gender

Gender	No. of patients (n=30)	Percentage (%)
Male	18	60
Female	12	40

Figure 1: Based on Gender

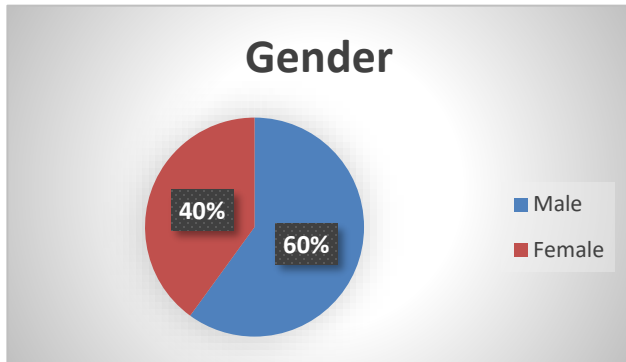
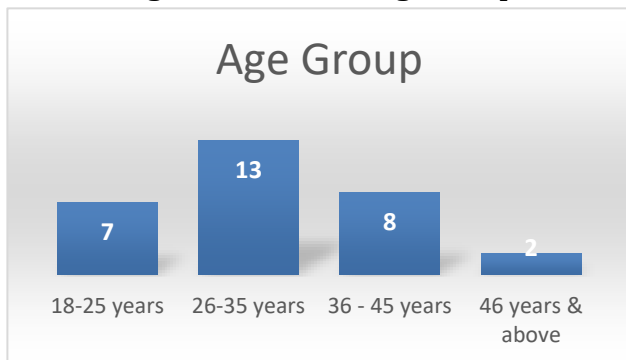


Table 2: Based on Age group

Age group	No. of patients (n=30)	Percentage (%)
18-25 years	7	23.33
26-35 years	13	43.33
36 - 45 years	8	26.67
46 years & above	2	6.67

Figure 2: Based on Age Group



The COloRectal Evaluation of Clinical Therapeutics Scale (CORECTS) combines five cardinal symptoms of hemorrhoids: pain, itching, swelling, bleeding and discomfort. In addition, CORECTS also accounts for quality of life with an “Impact on Well-being (IW)” score, that measures the impact of hemorrhoidal symptoms on well-being, where zero indicates no symptoms

and 10 indicates worst possible symptom/impact. In the post treatment section of the CORECTS there is also an “Overall Improvement” score, which assesses the total improvement in symptoms following treatment; similarly, a score of 0 indicates no improvement at all and 10 indicates maximal improvement comparable to the healthy state with treatment(22)

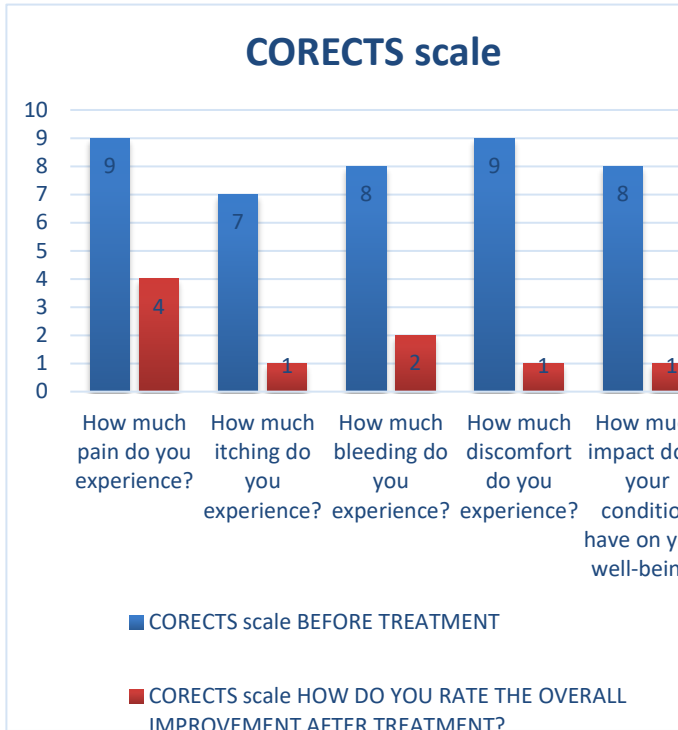
The average CORECTS score for 30 patients before treatment is 41 out of 50 whereas after treatment was 9 out of 50 (Table 3 & Figure 3).

Table 3: Effectiveness of vitamin E based on CORECTS scale.

QUESTIONS	BEFORE TREATMENT	HOW DO YOU RATE THE OVERALL IMPROVEMENT AFTER TREATMENT?
How much pain do you experience?	9	4
How much itching do you experience?	7	1
How much bleeding do you experience?	8	2
How much discomfort do you experience?	9	1
How much impact does your condition have on your well-being?	8	1



Figure 3: Effectiveness of vitamin E based on CORECTS scale.

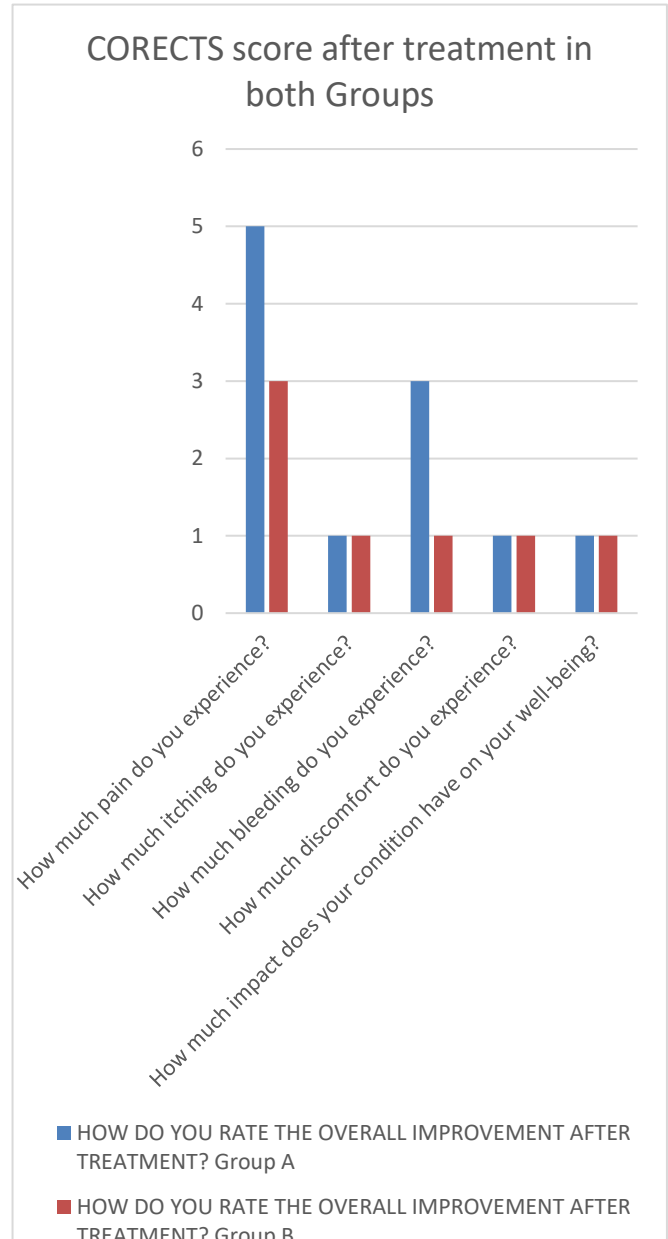


In CORECTS score, after treatment in both Group A and Group B showed 11 out of 50 and 7 out of 50 respectively (Table 4 & Figure 4).

Table 4: Based on improvement of CORECTS score after treatment in Both Groups

QUESTIONS	HOW DO YOU RATE THE OVERALL IMPROVEMENT AFTER TREATMENT	
	Group A	Group B
How much pain do you experience?	5	3
How much itching do you experience?	1	1
How much bleeding do you experience?	3	1
How much discomfort do you experience?	1	1
How much impact does your condition have on your well-being?	1	1

Figure 4: Based on improvement of CORECTS score after treatment in Both Groups



Conclusion:

The study concluded that the patients in Group B who received standard treatment plus Vitamin E supplement had better recovery of symptoms and improved quality of life using CORECTS Scale when compared to Group A who received standard treatment alone. Furthermore, studies are needed to support the existing data as it was carried out in a smaller group.



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