



A Clinical Observational Study on the Effect of Constitutional Remedy in the Treatment of Celiac (Coeliac) Disease Patient of Pediatric Age Group

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Abstract

Celiac disease (CD) is the most common genetically related food intolerance, worldwide. Celiac disease is a multifactorial, autoimmune disorder that occurs in genetically susceptible individuals. Classic GI pediatric cases usually appear in children aged 9-12 years. Celiac disease may also occur in adults and is usually precipitated by an infectious diarrheal episode or other intestinal disease. The prevalence of celiac disease in first degree relatives of celiac patients is 10-12%. In a recent study of Sahin et al the prevalence of celiac disease (CD) in siblings of pediatric celiac patients is reported to be 3.9%. The prevalence of CD in monozygotic twins has been found as high as 75%-80%.

Key Word- Coeliac Disease, General Management, Homoeopathic Management

INTRODUCTION

Celiac disease, also referred to as celiac sprue or nontropical sprue, is a common condition characterized by a maladaptive immune response to gluten, a protein found in many grains (e.g., wheat). The disease often occurs in patients with other autoimmune illnesses, as both are associated with HLA variants (human leukocyte antigens), which encode immunoregulatory proteins that cause pathologically increased immune responses. The underlying pathophysiology is believed to be a combination of gluten intolerance, which triggers an autoimmune reaction, and production of autoantibodies that target tissue transglutaminase, specifically within the proximal small intestine. Typical findings include changes in bowel habits and symptoms associated with malabsorption (e.g., fatigue, weight loss, vitamin deficiencies). Diagnostic tests include the detection of various antibodies. To confirm the diagnosis, an endoscopic biopsy from the small intestine is needed. Histopathological findings often include villous atrophy and crypt hyperplasia. A definitive diagnosis is necessary, as therapy involves a lifelong commitment to a gluten-free diet. If patients comply with this diet, the prognosis is generally very good and the increased risk of celiac-associated malignancies (e.g., intestinal lymphoma) is mitigated. Celiac Disease is a very common problem nowadays in children's. Especially in 2-10 years of age and school going children. Homoeopathic remedies have a holistic approach and easily applicable without any side effects. Choosing homeopathic remedy for celiac disease can prevent child from medical hazard. Celiac disease is emotional and physical "meltdowns" common among children in the 2- to 4-year-old age range. This is a disorder of small intestine in which a person has an immune reaction to eating gluten. The delicate lining of small intestine gets damage in response to the reaction of gluten which Leads to the symptoms. Gluten is a protein found mainly in wheat, barley, oats and rye most of including pasta, cakes, cereals most of bread, biscuits and certain type of noted that wheat allergy and celiac disease. However, awareness should be raised and there should be low threshold for investigating both symptomatic children and those with associating condition as a it is known that approximately 90 % of cases remain undiagnosed. The CD is commonly

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Page 5 detected in patient with diarrhea, but the clinical manifestations of CD are numerous and vary from none (asymptomatic) to a board spectrum of gastrointestinal symptoms and extraintestinal manifestations. These different mode of

presentation lead expert to elaborate the OSLO classification which subdivides CD into symptomatic CD includes the classical and non-classical CD. The classical CD present with sign and symptom of malabsorption and the non-classical CD is characterized by other gastroenterological symptoms apart from diarrhea and extra intentional symptoms. The sub clinical CD is below the threshold of clinical detection. "This is also potential CD". Description the patient at risk of developing the disease in future. In this study we examined the clinical presentation of CD pediatric patient. In case of pediatric celiac disease we get many patient with different type of modalities different causation, sensation and mental symptoms etc. these uncommon peculiar symptom help to find the totality symptoms and individualize the patient so with the help of similium. Our main goals to identify the constitution of patient and selecting the constitutional homeopathy remedy. The symptoms of celiac disease vary greatly from one person to another both in extent and seriousness, making diagnosis difficult. Celiac disease can manifest itself with a range of clinical presentations (the so-called celiac iceberg), including the typical malabsorption syndrome (chronic diarrhea, weight loss, abdominal distension) and a spectrum of symptoms potentially affecting any organ system. Since celiac disease often presents in an atypical or even silent manner, many cases remain undiagnosed, their diet treatment is significantly delayed and, consequently, the risk of long-term complications increases. The strong genetic influence on the susceptibility to the celiac disease is suggested by the occurrence of multiple cases in families.

Aim: To find out the effectiveness of constitutional remedy in the treatment of coeliac disease patient of paediatric age group.

Objectives:

1. To ensure the effect of homoeopathic remedies in the treatment of celiac Disease.
2. To evaluate the role of study of constitution in the management of coeliac disease.

Definition: Haemorrhoids as "Varicosities of the veins of the Haemorrhoidal plexus, often complicated by inflammation, thrombosis, and bleeding."

Types of celiac Disease

Celiac disease has now been categorized into 4 main classes according to the NIH consensus conference.

1. Classical celiac disease includes those symptoms commonly associated with the disease in the past, diarrhea, bloating, abdominal pain, and weight loss.
2. Celiac disease with atypical symptoms includes those extra intestinal symptoms of osteoporosis, neurological involvement, and little or no abdominal symptoms.
3. Silent celiac disease includes those individuals who are asymptomatic yet have both positive serology and biopsy.
4. Latent celiac disease includes positive serology and negative biopsy, but may later present with positive symptoms or intestinal changes.

Cause of celiac disease

1. Genetic defect that cause the body's immune system to produce antibodies in the presence of gluten, attack the lining of the small intestine. As a result villi that line the small intestine become damaged and can no longer absorb nutrients properly. Impaired nutrient absorption in turn causes the person to become malnourished, irrespective of the amount of food eaten.
2. Celiac disease is thought to have a strong genetic component. The onset of celiac disease has been associated with genes on Chromosome 6 called Human Leukocyte Antigens (HLA) class II. HLA II genes affect an individual's susceptibility to disease by mediating the interactions between cells of the immune system.

Symptoms in children

Failure to thrive, Short stature, Vomiting, Chronic diarrhoea, Abdominal pain, Poor appetite, Irritability, Failure to gain weight, weight loss, Abdominal bloating, Pale, fatty, foul-smelling stools, Constipation, Muscle wasting, Delayed puberty, Defect in permanent teeth.

STATISTICAL ANALYSIS AND RESULT

In this study 60 diagnosed cases of Celiac (Coeliac) Disease were taken into consideration (n=60), degree of freedom (n-1) is 59 and level of significance is 5%.

1. Null hypothesis (H_0): Homoeopathic medicines are not effective in treatment of Celiac (Coeliac) Disease. $H_0: \mu_d = 0$

2. Alternative hypothesis (H_1): Homoeopathic medicines are effective in treatment of Celiac (Coeliac) Disease. $H_1: \mu_d \neq 0$

Sr.No.	Before Treatment	After Treatment	Difference(x)	X ²
1.	11	5	6	36
2.	15	10	5	25
3.	12	12	0	0
4.	12	4	8	64
5.	13	8	5	25
6.	11	5	6	36
7.	15	11	4	16
8.	13	10	3	9
9.	13	6	7	49
10.	8	2	6	36
11.	16	16	0	0
12.	11	2	9	81
13.	13	4	9	81
14.	14	10	4	16
15.	12	8	4	16
16.	9	3	6	36
17.	12	2	10	100
18.	13	10	3	9
19.	12	6	6	36
20.	12	6	6	36
21.	15	11	4	16
22.	13	6	7	49
23.	8	1	7	49
24.	11	11	0	0
25.	15	8	7	49
26.	11	3	9	81
27.	12	8	4	16
28.	10	5	5	25
29.	12	6	6	36
30.	12	8	4	16
31.	11	5	6	36
32.	15	10	5	25
33.	12	12	0	0
34.	12	4	8	64
35.	13	8	5	25
36.	11	5	6	36
37.	14	10	4	16
38.	13	10	3	9
39.	13	6	7	49
40.	8	2	6	36
41.	16	16	0	0

42.	11	2	9	81
43.	13	4	9	81
44.	14	10	4	16
45.	11	7	4	16
46.	9	3	6	36
47.	12	2	10	100
48.	13	10	3	9
49.	12	6	6	36
50.	12	6	6	36
51.	15	11	4	16
52.	13	6	7	49
53.	8	1	7	49
54.	11	11	0	0
55.	15	3	7	49
56.	11	3	9	81
57.	11	7	4	16
58.	10	5	5	25
59.	12	6	6	36
60.	12	8	4	16
			$\Sigma 320$	$\Sigma 2088$

Note : Here X is difference between before treatment and after treatment score.

Test Statistical:

Paired t – test is applicable in this study.

$$t = \frac{\bar{x}}{sd/\sqrt{n}}$$

- \bar{x} = Standard error of the mean difference
- sd = Standard deviation
- n = sample size

Calculations:

- $\bar{x} = \frac{\Sigma X}{n} = 5.30$
- $Sd = \sqrt{\left[\frac{\Sigma x^2 - \frac{(\Sigma x)^2}{n}}{n-1} \right]} = 2.563$

T calculated:

- $t = \frac{\bar{x}}{sd/\sqrt{n}} = 16.424$

Paired Samples Test							
		Paired Differences					
		Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
Pair 1	Before - After	5.30	2.563	0.323	16.424	59	.000

A calculated value of t in statistics is 16.424 while its tabulated value at 0.05% level of significance for 59 degree of freedom is 2.04.

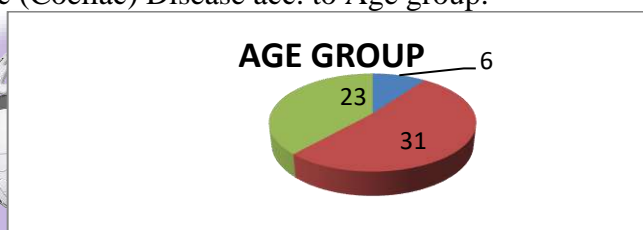
Since calculated value of t statistic is greater than its tabulated value, null hypothesis stands rejected while alternative hypothesis is accepted, at 0.05% level of significance. Hence, homoeopathic medicines are found significantly effective in the treatment of Celiac (Coeliac) Disease.

Observation and Outcome

For A CLINICAL OBSERVATIONAL STUDY ON THE EFFECT OF CONSTITUTIONAL REMEDY IN THE TREATMENT OF CELIAC (COELIAC) DISEASE PATIENT OF PEDIATRIC AGE GROUP, 60 cases of Celiac (Coeliac) Disease were taken from Sri Ganganagar Homoeopathic Medical College, Hospital and Research Institute, Sri Ganganagar, Rajasthan.

Table-1 Distribution of 60 cases of Celiac (Coeliac) Disease acc. to Age group.

S.no	Age group (Years)	No of Cases	Percentage
1	3-5 yrs	6	10%
2	6-8 yrs	31	51.67%
3	9-10 yrs	23	38.33%
	Total	60	100%



As shown in the above graph out of 60 cases of Celiac (Coeliac) Disease maximum cases were observed in age group 6-8 yrs that is 31 cases (51.67%) whereas 23 cases (38.33%) were observed minimum cases in 3-5 yrs age group, 6 cases (10%).

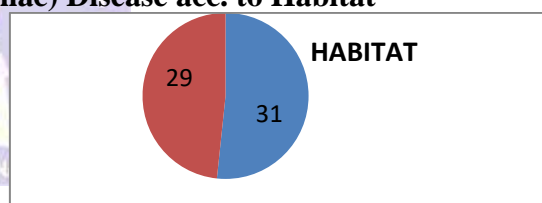
Table-2 Distribution of 60 cases of Celiac (Coeliac) Disease acc. to Gender.

S.no	Gender	No. of Cases	Percentage
1	Male	33	55%
2	Female	27	45%
	Total	60	100%

As shown in the above graph out of 60 cases of Celiac (Coeliac) Disease maximum cases were observed in the patients of Male that is 33 cases (55%), whereas 27 cases (45%) of were observed in the patient of Female.

Table-3 Distribution of 60 cases of Celiac (Coeliac) Disease acc. to Habitat

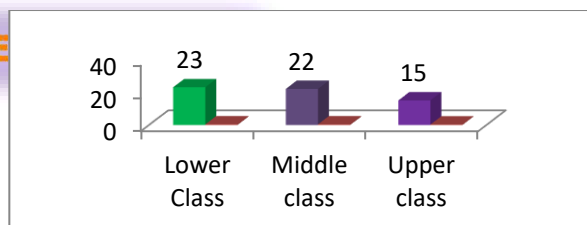
S.no	Habitat	No. of Cases	Percentage
1	Rural	31	51.67%
2	Urban	29	48.33%
	Total	60	100%



As shown in the above table out of 60 cases of Celiac (Coeliac) Disease maximum cases were observed in the patients of rural area that is 31 cases (51.67%), whereas 29 cases (48.33%) of were observed in the patient of urban area.

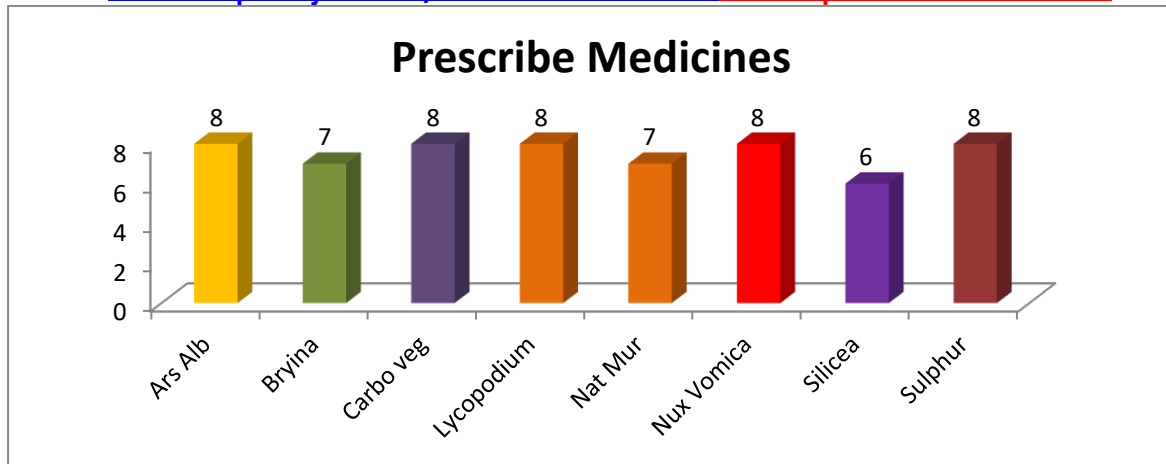
Table - 4 Distribution of 60 cases of Celiac (Coeliac) Disease acc. to Socio-Economic Status.

Sr. No.	Socioeconomic status	No. of cases	Percentage
1	Lower class	23	38.33%
2	Middle class	22	36.67%
3	Upper class	15	25.00%
	Total	60	100%



As shown in above graph out of 60 cases of Celiac (Coeliac) Disease maximum cases were observed in Lower class that is 23 cases (38.33%), whereas 22 cases (36.67%) were observed in Middle class and 15 cases (30%) were observed in Upper class.

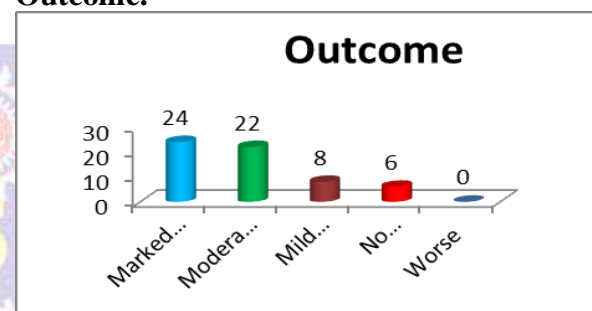
Table-5 Graphical distribution of 60 cases of Celiac (Coeliac) Disease acc. to Prescribed Medicines



As shown in the above graph out of 60 cases of Celiac (Coeliac) Disease in maximum cases Ars. Alb, Carb. Veg, Lycopodium, Nux Vomica and Sulphur was prescribed as indicated remedy that is 8 cases each (13.33%) followed by Bryina and Nat Mur in 7 cases each (11.67%), Silicea in 6 cases (10%).

Sr. No.	Name of Prescribed Medicine	No. of cases	Percentage
1	Ars Alb	8	13.33%
2	Bryina	7	11.67%
3	Carbo veg	8	13.33%
4	Lycopodium	8	13.33%
5	Nat Mur	7	11.67%
6	Nux Vomica	8	13.33%
7	Silicea	6	10.00%
8	Sulphur	8	13.33%
	Total	60	100%

Table 7 :Distribution of 60 cases of Celiac (Coeliac) Disease acc. to their Outcome.



S.no	Outcome	No. of cases	Percentage
1	Marked Improvement	24	40.00%
2	Moderate Improvement	22	36.67%
3	Mild Improvement	08	13.33%
4	No Improvement	06	10%
5	Worse	0	0% %
	Total	60	100%

As shown in the above graph out of 60 cases of Celiac (Coeliac) Disease maximum cases that is 24 cases (40%) have shown Marked Improvement, 22 cases (36.67%) has shown Moderate improvement, 8 cases (13.33%) have shown Mild Improvement whereas only 6 cases (10%) have shown no change of symptoms.

CONCLUSION

Celiac disease is an immunemediated enteropathy caused by a sensitivity to gluten in genetically susceptible individuals. Homoeopathic treatment is best suitable for the management of coeliac disease. Coeliac disease is common between 2 to 10 years of age, female suffer more than male. Homoeopathic medicines used as first line of treatment

along with diet and lifestyle changes for management of coeliac disease. Homeopathic treatment focuses on the patient as a person. When on the base of simlimum a well selected medicine is administered to a sick person, there is gradual relief in symptoms and restoration of health. It represents the reaction of susceptible organism to the impression of the curative remedy. With homoeopathic treatment, the right medicine will manage the increased sensitivity to gluten protein to normal and regulation of diet along with homoeopathic treatment can intensify the management of coeliac disease.

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