



دانشگاه علوم پزشکی و خدمات  
بهداشتی درمانی کرمان

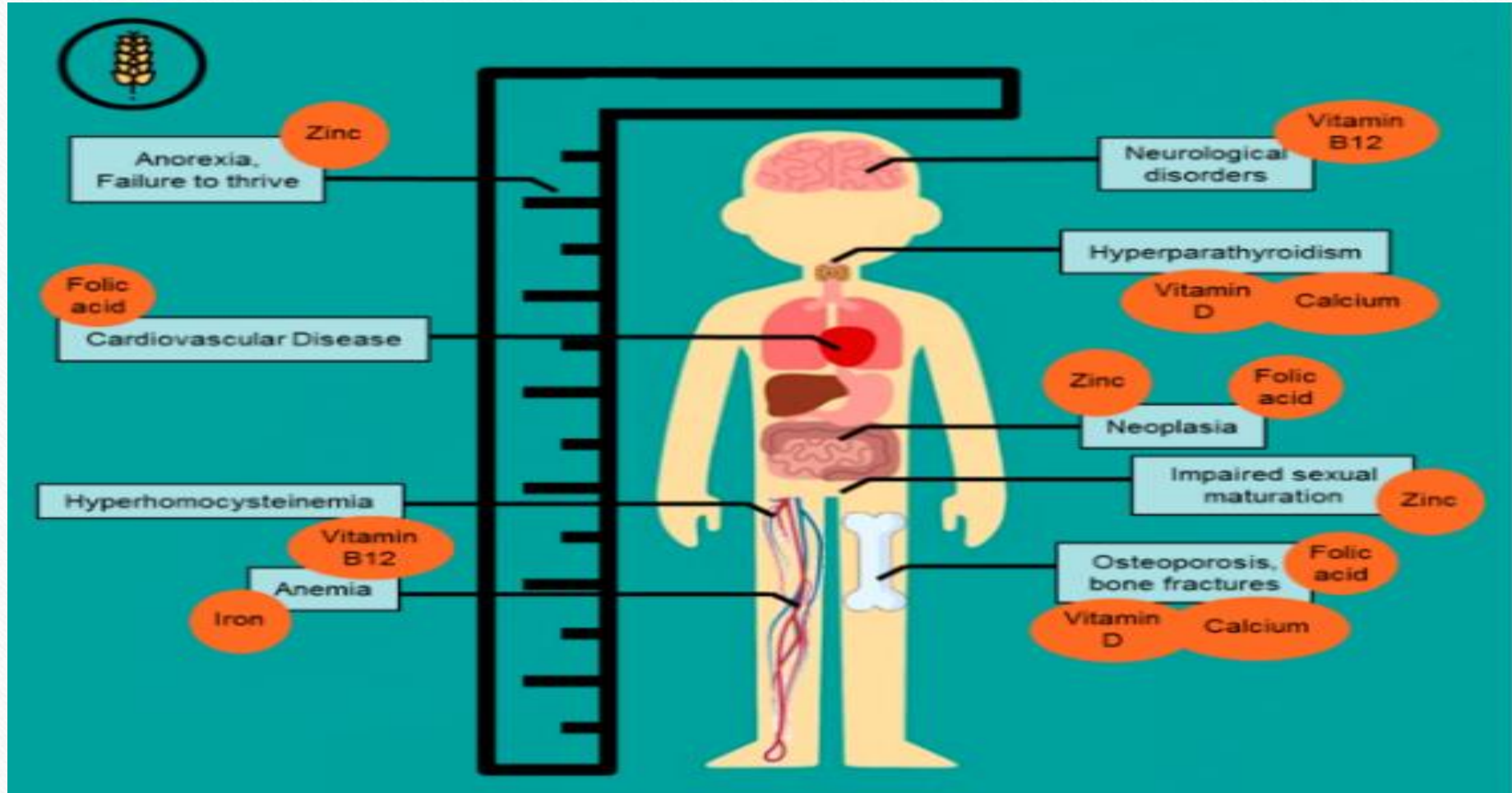


## Evaluation of pulmonary volumes in patients with celiac disease in Afzalipour Hospital, Kerman (2019)

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presented by Dr. Mohsen Shafiepour/ Pulmonologist

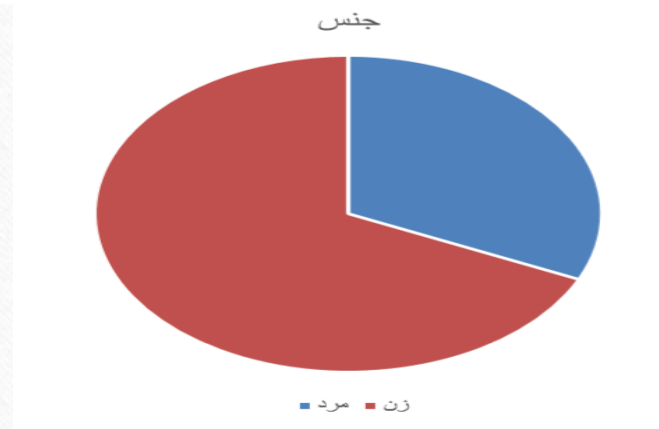
Celiac disease is a common malabsorptive bowel disease caused by gluten sensitivity that affects other organs of the body in addition to the gastrointestinal tract such as liver, brain and respiratory system.



This cross-sectional descriptive study was performed on all adult patients with celiac disease in celiac registry in Afzalipour Hospital. All patients whose records were complete were included in the study.

## جدول شماره-۱ میانگین سن، قد و وزن بیماران مورد بررسی

ماکزیمم	مینیمم	انحراف معیار	میانگین	
۸۱	۱۱	۱۸/۰۲	۳۷/۵۹	سن
۱۷۵	۱۲۰	۱۴/۳۰	۱۵۷/۲۲	قد
۲۳	۸۵	۱۷/۰۶	۵۷/۰۹	وزن



نمودار شماره-۱ فراوانی جنس در بیماران مورد بررسی

## جدول شماره ۲- میانگین حجم های ریوی در بیماران مورد بررسی

متغیر	میانگین	انحراف معیار	مینیمم	ماکزیمم
FVC	۳/۱۵	۰/۹۳ <sub>I</sub>	۱/۵۳	۴/۸
FEV1	۲/۶۸	۰/۷۶	۱/۳۶	۳/۹۹
FEV1/FVC	۸۳/۰۶	۵/۵۶	۷۵/۶	۹۸/۸۱
PEF	۶/۶۴	۱/۶۱	۳/۱۳	۹/۳۵

### جدول شماره ۳- مقایسه حجم های ریوی در بیماران مورد بررسی بر حسب جنسیت بیماران

Pvalue	جنس		متغیر
	زن	مرد	
۰/۰۵۲	۲/۸۹±۰/۶۱	۳/۷۱±۱/۲۷	FVC
۰/۱۲	۲/۵۰±۰/۵۳	۳/۰۵±۱/۰۵	FEV1
۰/۳۰۲	۸۳/۹۲±۵/۹۱	۸۱/۲۲±۴/۶۰	FEV1/FVC
۰/۰۳۸	۶/۱۳±۰/۹۱	۷/۶۶±۲/۲۵	PEF

## جدول شماره-۴ مقایسه میانگین حجم های ریوی در بیماران مورد بررسی بر حسب قد

Pvalue	قد (سانتی متر)		متغیر
	۱۵۶-۱۷۵	۱۲۰-۱۵۵	
۰/۰۰۸	۳/۵۳±۰/۸۱	۲/۴۹±۰/۷۶	FVC
۰/۰۱۳	۲/۹۷±۰/۶۷	۲/۱۶±۰/۶۵	FEV1
۰/۰۲۶	۸۱/۱۱±۲/۸۸	۸۶/۴۷±۷/۵۲	FEV1/FVC
۰/۰۲	۷/۳۵±۱/۲۵	۵/۲۱±۱/۳۲	PEF



جدول شماره ۵- مقایسه میانگین حجم های ریوی در بیماران مورد بررسی بر حسب وزن

Pvalue	وزن		متغیر
	۶۰-۸۵	۲۳-۵۹	
۰/۰۰۸	۳/۵۷±۰/۷۷	۲/۵۵±۰/۸۳	FVC
۰/۰۱۴	۳/۰۱±۰/۶۰	۲/۲۰±۰/۷۲	FEV1
۰/۰۳۵	۸۹/۰۲±۲/۸۹	۸۶/۰۱±۷/۲۳	FEV1/FVC
۰/۰۰۵	۷/۳۷±۱/۲۹	۵/۴۵±۱/۴۱	PEF

Following reports of coeliac disease *Summary* associated with **diffuse interstitial lung disease 24 patients** with known villous atrophy of the jejunum were investigated for the presence of pulmonary disease. **In 3 of these patients** clinical, radiological, and physiological examination revealed evidence of diffuse pulmonary disease consistent with a diagnosis of chronic fibrosing alveolitis.

ORIGINAL ARTICLES

CELIAC DISEASE AND DIFFUSE INTERSTITIAL LUNG DISEASE

Author links open overlay panel [M.J. Lancaster](#) [Smith M.K.](#)  
[Benson I.D.](#) [Strickland](#)

Asthma Symptoms and PFT, Obstructive Changes	Adherence to Diet, No. (%)		P Value <sup>a</sup>
	Yes, 31 (74%)	No, 22 (26%)	
<b>Asthma</b>			
Physician-diagnosed asthma	7 (23)	1 (9)	0.657
Wheezing at any time	10 (32)	3 (27)	1.000
Wheezing in the last 12 months	6 (19)	2 (18)	1.000
Exercise-induced wheezing	7 (23)	2 (18)	1.000
Current use of asthma medication	8 (26)	3 (27)	1.000
Nighttime coughing	5 (16)	2 (18)	1.000
PFT (obstructive changes)	4 (13)	1 (9)	1.000
<b>Allergic Rhinitis</b>			
Allergic rhinitis	11 (36)	5 (46)	0.720
Physician-diagnosed allergic rhinitis	4 (13)	1 (9)	1.000
Allergic rhinoconjunctivitis	7 (23)	4 (36)	0.437
Nasal steroid use, > 2 weeks	7 (23)	3 (27)	1.000

<sup>a</sup>Fisher's exact test.

Sebnem ozdogan nafiye urganci merve usta and nuray usla kizilkan. Prevalence of asthma and allergic rhinitis in children with celiac disease. Iran J Pediatr. 2016

**Table 3 Subgroup analysis among children with asthma by using the PAC and its related factors in relation to the risk of celiac disease**

	Celiac Disease, no. (%) (n = 94)	Controls, no. (%) (n = 188)	p Value
Asthma and atopic conditions*			0.64
Neither	54 (57)	118 (63)	
Atopic conditions without asthma	16 (17)	35 (19)	
Asthma without atopic conditions	11 (12)	17 (9)	
Asthma with atopic conditions	13 (14)	18 (9)	
Asthma and atopy#			0.33
No asthma	70 (75)	153 (81)	
Asthma without atopy	17 (18)	28 (15)	
Asthma with atopy	7 (7)	7 (4)	
Asthma status at index date			0.32
No asthma	70 (75)	153 (82)	
Inactive asthma	6 (6)	12 (6)	
Active asthma	18 (19)	23 (12)	
Asthma onset age§			0.31
No asthma	70 (74)	153 (81)	
Asthma <6 y old	14 (15)	24 (13)	
Asthma ≥6 y old	10 (11)	11 (6)	
Asthma and family history of asthma			0.056
No asthma	70 (75)	153 (81)	
Asthma, with no family history of asthma	7 (7)	20 (11)	
Asthma, with a family history of asthma	17 (18)	15 (8)	
Asthma by using the PAC and API			0.068
Group 1 (PAC and API positive)	13 (14)	11 (6)	
Group 2 (PAC only positive)	11 (12)	24 (13)	
Group 3 (API only positive)	5 (5)	4 (2)	
Group 4 (PAC and API negative)	65 (69)	149 (79)	

PAC = Predetermined asthma criteria; API = asthma predictive index.

\*Atopic conditions include physician diagnoses of allergic rhinitis and atopic dermatitis (eczema).

#Atopy was defined by allergic sensitization through a skin test or a blood test Radioallergosorbent.

§Asthma onset age in years was defined by age when the patients met PAC for the first time.

Bhavish Patel, M.D. Chung-II Wi. ,M.D. M.Earth Hasassri. MD .,Rohit Divekar, MBBS PhD, Eyad almallouhi. Heterogeneity of asthma and the risk of celiac disease in children. 2018; 39(1).

These results confirm a recent report questioning whether there is truly a **relationship** between celiac disease and **interstitial lung disease**. Nevertheless our findings suggest an association between celiac disease and **airway obstruction**.

- Association Between Celiac Disease and Lung Disease  
Susan M. Tarlo, M.B. I. Broder, M.D.E.J. Prokipchuk, M.D. L. Peress, M.D., F.C.C.P. S. Mintz, M.D. <https://doi.org/10.1378/chest.80.6.715> PlumX Metrics

## **CONCLUSIONS:**

The most common PFT abnormality in a longitudinal cohort of patients with celiac disease was obstruction, mainly attributable to asthma despite the relatively advanced age compared to those with normal PFTs.



Pulmonary Function Test Characteristics in Celiac Disease Carl Ruthman MD\* Norlalak Jiramethee MD Gaja Shaughnessy MD Ali Alsaad MBBCh Jose Yataco MD; and Emir Festic MD Mayo Clinic, Jacksonville, FL

## **Conclusion:**

The results of this study indicated pulmonary volumes in celiac patients was lower than normal age and sex match population. Further studies to follow up and assessment respiratory problems in these patients were need.

*Thanks for Your Attention*

