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· 临床研究 ·

伴有食管外食管

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【摘要】 目的 通过对伴有和不伴有食管外 (extra-esophageal, EE) 症状的反流性食管炎 (reflux esophagitis, RE) 患者的一般人口学资料、生活方式、饮食习惯、合并症、目前用药、焦虑、抑郁等方面的比较, 探讨 EE 症状发生的危险因素。方法 选取 2016 年 9 月到 2017 年 8 月于首都医科大学宣武医院消化科门诊就诊, 并于胃镜下明确诊断为 RE 的 361 例患者为研究对象, 以是否存在 EE 症状, 将其分为伴 EE 症状组和不伴 EE 症状组。采用问卷调查的方法对其进行一般人口学资料、生活方式、饮食习惯、合并症、目前用药、患者健康问卷-9 (Patient Health Questionnaire-9, PHQ-9) 抑郁、焦虑、性焦虑-7 (General Anxiety Disorder-7, GAD-7) 焦虑、胃食管反流 (Gastroesophageal Reflux Disease Questionnaire, GerdQ)、反流症状等方面的调查。结果 361 例 RE 患者, 伴 EE 症状者 218 例, 以、反、性、分 52.75%、46.79% 和 26.15%。因素分、组患者在、(body mass index, BMI)、焦虑、抑郁方面, 存在学 ($P < 0.05$)。Logistic 分、 ($OR: 1.646, 95\% CI: 1.049 \sim 2.572, P < 0.05$)、 ($OR: 2.488, 95\% CI: 2.047 \sim 3.281, P < 0.01$)、BMI ($OR: 1.067, 95\% CI: 1.004 \sim 1.135, P < 0.05$)、抑郁 ($OR: 1.062, 95\% CI: 1.002 \sim 1.133, P < 0.05$)、焦虑 ($OR: 1.061, 95\% CI: 1.001 \sim 1.131, P < 0.05$) 是 RE 患者发生 EE 症状的危险因素。结论 RE 患者以、反、性为 EE 症状; BMI、抑郁和焦虑是 RE 患者发生 EE 症状的危险因素。

【关键词】 反流性食管炎; 食管外症状; 焦虑; 抑郁; 危险因素

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Analysis of risk factors in reflux esophagitis with extra-esophageal symptoms

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【Abstract】 To determine the risk factors of the reflux esophagitis (RE) with extra-esophageal (EE) symptoms by comparing general demographic information, lifestyle, eating habits, comorbidities, current medications, anxiety, depression of RE patients with and without EE symptoms. **Methods** The subjects of the study were seen in the Department of Gastroenterology, Xuanwu Hospital, Capital Medical University from September 2016 to August 2017 and were clearly diagnosed as RE under gastroscopy. There were 361 cases in total. They were divided into group with EE symptoms and group without EE symptoms. The patients were surveyed on General demographic information, lifestyle, eating habits, comorbidities, current medications, Patient Health Questionnaire-9 (PHQ-9) Depression Scale, General Anxiety Disorder-7 (GAD-7) Anxiety Scale, Gastroesophageal Reflux Disease Questionnaire (GerdQ) and Reflux Symptom Index (RSI). **Results** Among the 361 patients with RE, there were 218 patients with EE symptoms. Sensation of foreign body within the throat, recurrent sore throat and chronic cough were more common, accounting for 52.75%, 46.79% and 26.15% respectively. Univariate analysis showed that there were significant differences in low education level, smoking, constipation, high body mass index (BMI), anxiety, and depression ($P < 0.05$) between two groups. Multivariate Logistic regression analysis identified that low education level ($OR: 1.646, 95\% CI: 1.049 \sim 2.572, P < 0.05$), smoking ($OR: 2.488, 95\% CI: 2.047 \sim 3.281, P < 0.01$), high BMI ($OR: 1.067, 95\% CI: 1.004 \sim 1.135, P < 0.05$), depression ($OR: 1.062, 95\% CI: 1.002 \sim 1.133, P < 0.05$), anxiety ($OR: 1.061, 95\% CI: 1.001 \sim 1.131, P < 0.05$) were the risk factors of onset of EE symptoms in RE patients. **Conclusion** The main extra-esophageal symptoms of RE were sensation of foreign body within the throat and recurrent sore throat, chronic cough. Low education level, high BMI, smoking, depression and anxiety were risk factors of RE with extra-esophageal symptoms.

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表1 食管外症状组食管外症状的构成比
 a.1 in id n o 't a- so' z- k- al sy 't o s in' z' g- o ' - j z' 't a- so' z- k- al sy 't o s (n=218)

Extra-esophageal symptoms	Frequency	Composition ratio/%
Sensation of foreign body within the throat	115	52.75
Recurrent sore throat	102	46.79
Chronic cough	57	26.15
Night cough	15	6.88
Asthma	15	6.88
Clearing throat	14	6.42
Hoarse voice	12	5.50
Secretion flowing down the posterior pharyngeal wall	11	5.05

表2 两组胃镜下反流性食管炎分级比较
 a.2 o 'a ison o lassi i q ion o l' s o' z- k- i s nd g- a s o s o' 't - , n' - o g- o ' s n(%)

LA classification	Group with EE symptoms (n = 218)	Group without EE symptoms (n = 143)	χ^2	P
LA-A	34 (15.60)	24 (16.78)	0.090	0.764
LA-B	170 (77.98)	111 (77.62)	0.006	0.936
LA-C	9 (4.13)	7 (4.90)	0.120	0.730
LA-D	5 (2.29)	1 (0.70)	0.545	0.461

LA: Los Angeles; EE: extra-esophageal.

2.3 伴有食管外症状的反流性食管炎影响的分

研究[1,9-10]显示，伴有食管外症状的反流性食管炎患者，其体重指数(BMI)、GerdQ评分、EE症状评分均显著高于无食管外症状者(P<0.05)。

2.4 两组反流性食管炎分级的比较

研究[1,13]显示，伴有食管外症状的反流性食管炎患者，其反流性食管炎分级(GAD-7、PHQ-9)评分均显著高于无食管外症状者(P<0.05)。

2.5 伴有食管外症状的反流性食管炎对食管下括约肌的影响

研究[15-16]显示，伴有食管外症状的反流性食管炎患者，其食管下括约肌(LES)压力、食管上括约肌(UES)压力均显著低于无食管外症状者(P<0.05)。

3 讨论

本研究显示，伴有食管外症状的反流性食管炎患者，其反流性食管炎分级(GAD-7、PHQ-9)评分均显著高于无食管外症状者(P<0.05)。此外，伴有食管外症状的反流性食管炎患者，其食管下括约肌(LES)压力、食管上括约肌(UES)压力均显著低于无食管外症状者(P<0.05)。这可能与伴有食管外症状的反流性食管炎患者，其食管下括约肌(LES)压力、食管上括约肌(UES)压力降低，导致食管下括约肌(LES)压力、食管上括约肌(UES)压力降低，进而导致反流性食管炎的发生。

研究[1,9-10]显示，伴有食管外症状的反流性食管炎患者，其体重指数(BMI)、GerdQ评分、EE症状评分均显著高于无食管外症状者(P<0.05)。研究[11]显示，伴有食管外症状的反流性食管炎患者，其反流性食管炎分级(GAD-7、PHQ-9)评分均显著高于无食管外症状者(P<0.05)。研究[12]显示，伴有食管外症状的反流性食管炎患者，其反流性食管炎分级(GAD-7、PHQ-9)评分均显著高于无食管外症状者(P<0.05)。研究[13]显示，伴有食管外症状的反流性食管炎患者，其反流性食管炎分级(GAD-7、PHQ-9)评分均显著高于无食管外症状者(P<0.05)。研究[14,18]显示，伴有食管外症状的反流性食管炎患者，其反流性食管炎分级(GAD-7、PHQ-9)评分均显著高于无食管外症状者(P<0.05)。研究[15-16]显示，伴有食管外症状的反流性食管炎患者，其食管下括约肌(LES)压力、食管上括约肌(UES)压力均显著低于无食管外症状者(P<0.05)。研究[17]显示，伴有食管外症状的反流性食管炎患者，其食管下括约肌(LES)压力、食管上括约肌(UES)压力均显著低于无食管外症状者(P<0.05)。

表 3 伴有食管外症状的反流性食管炎影响因素的单因素分析

单因素分析结果 [M(P₂₅, P₇₅), n(%)]

Factors	Group with EE symptoms (n = 218)	Group without EE symptoms (n = 143)	Z/ χ^2	P
Age/a	54.00 (45.47, 62.00)	54.00 (40.00, 62.00)	-0.487	0.626
BMI/(kg · m ⁻²)	24.22 (22.04, 26.33)	23.44 (21.19, 25.95)	-2.005	0.043
Male	93 (42.66)	71 (49.65)	1.702	0.193
Low education level (up to junior high school)	130 (59.63)	69 (48.25)	4.522	0.034
Lifestyle and eating habits				
Smoking (Yes)	90 (41.28)	43 (30.07)	4.667	0.031
Alcohol drinking (Yes)	45 (20.64)	30 (20.95)	0.006	0.939
Drinking strong tea (Yes)	53 (24.31)	34 (23.78)	0.014	0.907
Drinking coffee (Yes)	28 (12.84)	20 (13.99)	0.098	0.755
Preference for sweets (Yes)	103 (47.25)	71 (49.65)	0.200	0.655
Overeating (Yes)	118 (54.13)	82 (57.34)	0.361	0.548
Short interval between dinner and sleep (Yes)	113 (51.83)	79 (55.24)	0.403	0.526
Preference for spicy foods (Yes)	75 (34.40)	53 (37.06)	0.267	0.606
Preference for acidic foods (Yes)	45 (20.64)	29 (20.28)	0.007	0.934
Preference for noodles (Yes)	114 (62.29)	79 (55.24)	0.302	0.583
Preference for fried foods (Yes)	49 (22.48)	44 (30.77)	3.105	0.078
Preference for fruits (Yes)	70 (32.11)	37 (25.87)	1.610	0.205
Preference for fatty foods (Yes)	86 (39.45)	56 (39.16)	0.003	0.956
Constipation (Yes)	54 (24.77)	22 (15.38)	4.577	0.033
Sleeping on a low pillow (Yes)	95 (43.58)	64 (44.76)	0.049	0.826
Comorbidities				
Hypertension (Yes)	65 (29.82)	39 (27.27)	0.272	0.602
Ischemic heart disease (Yes)	21 (9.63)	8 (5.59)	1.906	0.168
Diabetes mellitus (Yes)	21 (9.63)	13 (9.09)	0.030	0.863
Cerebrovascular disease	8 (3.67)	5 (3.50)	0.007	0.931
Current medications (oral)				
Low-dose aspirin	19 (8.72)	14 (9.79)	0.120	0.729
Clopidogrel	13 (5.96)	5 (3.50)	1.109	0.293
Hypoglycemic agents	21 (9.63)	8 (5.59)	1.906	0.168
Calcium channel blockers	34 (15.60)	24 (16.78)	0.090	0.764
GerdQ	8.24 (6.26, 10.33)	7.18 (5.54, 9.66)	-2.543	0.011

：extra-esophageal; BMI: body mass index; GerdQ: Gastroesophageal Reflux Disease Questionnaire.

表 两组焦虑、抑郁患者所占比例的比较

Factors	Group with EE symptoms (n = 218)	Group without EE symptoms (n = 143)	χ^2	P
PHQ-9				
0-4 points	117 (53.67)	95 (66.43)	5.804	0.016
>4 points	101 (46.33)	48 (35.57)		
GAD-7				
0-4 points	128 (58.72)	100 (69.93)	4.667	0.031
>4 points	90 (41.28)	43 (30.07)		

：extra-esophageal; PHQ-9: Patient Health Questionnaire-9; GAD-7: General Anxiety Disorder-7.

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反 ,食管和 管的胚胎 的 反和 症反产 性,
源, 配, 食管 反流 时, 管 反的 [1,19]。

表 5 与食管外症状 相关的因素分析
 a. 5 因素分析 of associated symptoms

Factors	B	Wald χ^2	P	OR	95% CI	
					Lower limit	Upper limit
Low education level	0.496	4.710	0.030	1.646	1.049	2.572
Smoking	1.024	7.565	0.005	2.488	2.047	3.281
High BMI	0.065	4.349	0.037	1.067	1.004	1.135
Constipation	-0.372	1.578	0.209	0.689	0.385	1.232
Depression	0.063	4.339	0.038	1.062	1.002	1.133
Anxiety	0.062	4.328	0.039	1.061	1.001	1.131
GerdQ score	-0.074	3.441	0.064	0.928	0.858	1.004

extra-esophageal; BMI: body mass index; GerdQ: Gastroesophageal Reflux Disease Questionnaire.

RE, BMI,

[18,20]

EE, LA,

EE

[1,9], BMI RE

EE, :

LES, BMI,

[10,23], RE

[4,24], EE, EE

, LES

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