[doi: 10.3969/j.issn.1006-7795.2022.01.022]

· 临床研究 ·

伴有食管外 食管

王荣欣[1*] 王 晶[1] 胡水清[2]

(1.首都医科大学宣武医院急诊科,北京 100053;2. 首都医科大学宣武医院消化科,北京 100053)

【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 、 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 分等方面的调查。**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 ($P<0.05$)。 Logist 分 , (OR:1.646,95% CI:1.049~2.572,$P<0.05$)、 (OR:2.488, 95% CI:2.047~3.281,$P<0.01$)、 BMI(OR:1.067, 95% CI:1.004~1.135,$P<0.05$)、抑郁(OR:1.062,95% CI:1.002~1.133,$P<0.05$) 焦虑(OR:1.061, 95% CI:1.001~1.131, $P<0.05$)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

【中图分类号】 R57 **【文献标识码】** A

Analysis o is a or s in ain s i l so a i is i a- so a al sy o s

Wang Rongxin[1*], Wang Jing[1], Hu Shuiqing[2]

(1. *Emergency Department*, *Xuanwu Hospital*, *Capital Medical University*, *Beijing* 100053, *China*; 2. *Department of Gastroenterology*, *Xuanwu Hospital*, *Capital Medical University*, *Beijing* 100053, *China*)

【A s a】 j i 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. **ods** 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). **s l s** 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 – 2.572, $P<0.05$), smoking (OR:2.488, 95% CI: 2.047 – 3.281, $P<0.01$), high BMI (OR:1.067, 95% CI: 1.004 – 1.135, $P<0.05$), depression (OR: 1.062, 95% CI: 1.002 – 1.133, $P<0.05$), anxiety (OR: 1.061, 95% CI: 1.001 – 1.131, $P<0.05$) were the risk factors of onset of EE symptoms in RE patients. **on sion** 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.

* Corresponding author, E-mail: wangrongxin@sina.com

网络出版时间:2022 – 01 – 16 网络出版地址:

第 1

表1 食管外症状组食管外症状的构成比

a . 1 in d n o a- so a al sy o s in o i a- so a al sy 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 Co a ison o lassi i a ion o l so a i is nd as os o n o 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; :extra-esophageal.

2.3 伴有食管外症状的反流性食管炎影响 的 分

□□□□□□□,□EE□□□□□□□□□□□、□□、□□□□ □□□□□□□□□□□(body mass index,BMI)□GerdQ□□, □□□□EE□□□, □□□□□□□□□□□□□□($P<0.05$), □□3。

2.4 两组 、 的比较

□GAD-7□□□□、PHQ-9□□□□□ □0~4□□ □ ,□EE□□□□□□□□□□□□□□□□□□□□EE□□□,□ □□□□□□□□□□□□($P<0.05$), □□4。

2.5 伴 症状的影响 的 分

□□□Logistic□□□□□ □□□□ RE□□□EE□□ □: □□□□□、□□、□BMI、□□□□□($P<0.05$), □□5。

3 论

□□ GERD□EE□□ □ □□ , □□□□□ 。 □□□□□ GERD□□ □□□□(non-erosive reflux disease, NERD)□RE[1]。□□□□□,□□□□□□□□□□RE□361□□□□□□□□, EE□□□□□□ ,□□□□□□□、□□□□□□□□□□□□, □□□□□[1,9-10] □□ 。 □□□□□[11]□□,13%□□□□□□□ □□ , □□Irwin□[12]□□ □□□ □□□ □ □□□ □ 85%□□□□□ □□ □。□□□□□□□□□□ □ □□□,□ □□□ □□□□□ □ □ □ □□ [1,13]。□□[14]□□□□ □□ □□ 50 □ ,□□ □ □ □ □□□ □□□ , □□ □,□□□□,□□□、□□□ □ □。□ □ □□□□□ □ □□□□、□□、□ □□□ , □□、□□ □□□□□。□情 □, □□□□ □肌(lower esophageal sphincter, LES)□ □□ □肌(upper esophageal sphincter, UES)□□止□□□-□□□□[15-16],UES□ □□□-□□闭□□ □□止□□□□□ □□□□触[13]。□□UES□□□□□□□□□□ □, □□□□□ □ 。 □□□[17]□□□□ 力测 □□:□□EE□□□RE□□UES□□□ 时极少□□□ 缩, □□□□□□□□扩张, □□□□ □□导 □□□□□□□□□。□□ □□□[14,18]□□:□EE□□□□□□□□□LES 力□降□□□蠕 □减弱,□UES 力□□ □□EE□□□□□□□ □□□□□。

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

Tab.3 Univariate analysis of risk factors of reflux esophagitis with extra-esophageal symptoms [$M(P_{25}, P_{75})$, 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

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

表4　两组焦虑、抑郁患者所占比例的比较

Tab.4 Comparison of proportion of patients with anxiety and depression in two groups　n(%)

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

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

□□□□□□□处未□□□□□步□□。另□□□□□□□□□□□□□□,□□□□□□□□□□□胚胎□源,□□□□□□□配,□□□□□□□□□□□时,□□□□释放速□肽细胞□□,诱导□□□□□□触□□□□□□□□□□□□□□□□产□□□□□,□□□□□□□□□□□□□□□□□□[1,19]。

表 5　与食管外症状　关的　因素分析

a . 5　l i a ia　analysis o　a o s asso ia　d　i　sy　o　s

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
Gerd　score	-0. 074	3. 441	0. 064	0. 928	0. 858	1. 004

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

□ □　,　、　、 BMI、
□ RE　□ □ □　, □ □ 年
□ 、　□　□　□　,
□ □[18,20]　□　□ 。□　, □　学
[21] 报　□ □ □　□ □　□
EE　, □　, □　LA　□ ,
□ □ □　□　学　,　□　□
□ □ □ □　□ □ 大 □　。
□　□ □ □ □ ,　EE
EE　。
通过 □ □　、□　、对　□ □
□ □[1,9]、 □ □ □　□　□ □ □
□　。　BMI　RE
EE　□ □　, □ □　报
[10,22]　□ ,　□ □　:　□
□ LES □ □　□ ,　BMI　□ □ □　□ □　, □ □
LES □ □ □ □ □ □ ,　□ □　□　□ □
□　; □　□ □ □ □
□ , □ □　□ □ □　□ □　□　, □　□ □
□ 、　[10,23]。
年 □　、　□ RE　□ □ □
[4,24],　□ □ EE　□　,　□ EE
□ □　□ □ 。　□　□ □　□
□ □ 年　□　□ □ : ①　/ □　, □
□ □ □ □　□ □ □ □　□ □ □ □ , LES □ □
□ □ □ □ ,

of RSI and RFS questionnaires in the Polish language version[J]. Otolaryngol Pol, 2018, 73(1): 1 -5.

[9] □ , □ □ □. GERD □ □定 □ □值 [J]. □ □医学杂□, 2021, 43(7): 636 -638.

[10] □ □ □, □ □ □. □年 □ □ □ □ [J]. □北医学, 2021, 27(1): 136 -141.

[11] Jaspersen D, Kulig M, Labenz J, et al. Prevalence of extra-oesophageal manifestations in gastro-oesophageal reflux disease: an analysis based on the ProGERD study[J]. Aliment Pharmacol Ther, 2003, 17(12): 1515 -1520.

[12] Irwin R S, French C L, Chang A B, et al. Classification of cough as a symptom in adults and management algorithms: CHEST guideline and expert panel report[J]. Chest, 2018, 153(1): 196 -209.

[13] Ates F, Vaezi M F. Approach to the patient with presumed extraoesophageal GERD[J]. Best Pract Res Clin Gastroenterol, 2013, 27(3): 415 -431.

[14] □ □ □, □ □ □, 林□ □. 动□ [J]. 医学 , 2020, 18(25): 125 -127.

[15] □ □ □, □ □ □, 史□ □. 血□ CGRP □ 化 与 激 、 标 相 [J]. □ □ □ 诊□治, 2019, 32(7): 48 -52.

[16] □ □, □ □, □ □. 治□效果与 □ □ 构 化 系 [J]. 首都医科大学学报, 2020, 41(2): 243 -248.

[17] Babaei A, Venu M, Naini S R, et al. Impaired upper esophageal sphincter reflexes in patients with supraesophageal reflux disease [J]. Gastroenterology, 2015, 149(6): 1381 -1391.

[18] □ □, □, □ □ □, 、 . 180 □ □ 动□学□ □ [J]. □消化杂□, 2021, 41(2): 94 -99.

[19] Stein M R. Possible mechanisms of influence of esophageal acid on airway hyperresponsiveness[J]. Am J Med, 2003, 115(Suppl 3A): 55S -59S.

[20] Kim S Y, Jung H K, Lim J, et al. Gender specific differences in prevalence and risk factors for gastro-esophageal reflux disease[J]. J Korean Med Sci, 2019, 34(21): e158.

[21] Schlottmann F, Andolfi C, Herbella F A, et al. GERD: presence and size of hiatal hernia influence clinical presentation, esophageal function, reflux profile, and degree of mucosal injury[J]. Am Surg, 2018, 84(6): 978 -982.

[22] Spantideas N, Drosou E, Bougea A, et al. Laryngopharyngeal reflux disease in the Greek general population, prevalence and risk factors[J]. BMC Ear Nose Throat Disord, 2015, 15: 7.

[23] Kurin M, Fass R. Management of gastroesophageal reflux disease in the elderly patient[J]. Drugs Aging, 2019, 36(12): 1073 -1081.

[24] Wang R X, Wang J, Hu S Q. Study on the relationship of depression, anxiety, lifestyle and eating habits with the severity of reflux esophagitis[J]. BMC Gastroenterol, 2021, 21(1): 127.

(收□日期:2021 -09 -04)

编辑 孙刊