

· 临床研究 ·

老年变应性鼻炎的临床特征及危险因素

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【摘要】目的 研究老年变应性鼻炎(AR)的临床特征及危险因素。**方法** 将2018年1月至2022年12月北京王府中西医结合医院诊治的236例AR患者纳入研究组,根据患者年龄,将其分为中青年组(年龄18~59岁,102例)及老年组(年龄≥60岁,134例);同时将医院同期接收的160例与老年组AR患者性别、年龄相似,但无变应性临床症状的老年志愿者作为对照组。首先比较中青年组及老年组AR患者的临床特征,再以对照组为参照,通过二元logistic回归模型分析影响老年AR发病的相关因素。采用SPSS 19.0软件进行数据分析。组间比较采用 χ^2 检验。**结果** 不同年龄段AR患者性别比例及发病高峰期比较,差异均无统计学意义;老年AR患者变应原检出阳性率为32.09%(43/134),低于中青年组的68.63%(70/102),差异有统计学意义($P<0.05$)。老年组患者AR分型多为间歇性(53.73%, 72/134),严重程度多为轻度(63.43%, 85/134);中青年组患者AR分型多为持续性(60.78%, 62/102),轻度和中-重度严重程度各占50.00%(51/102),差异有统计学意义($P<0.05$)。老年AR患者伴随症状咽喉不适/咳嗽发生率为29.85%(40/134),低于中青年组的46.08%(47/102),差异有统计学意义($P<0.05$);其余伴随症状比较,差异无统计学意义。二元logistic回归分析提示,饲养宠物、职业接触粉尘、AR家族史以及哮喘史是影响老年AR发病的独立危险因素($OR=1.752, 2.036, 1.992, 3.916; P<0.05$)。**结论** 与中青年相比,老年AR患者变应原阳性率更低,临床表现及病情严重程度更轻,临床应注重老年AR的筛查及诊断,减少漏诊误诊率;此外,还应注重具有饲养宠物、职业性接触粉尘、AR家族史及哮喘史等AR危险因素且具备临床症状的老年人的AR筛查。

【关键词】 老年人;变应性鼻炎;临床特征;危险因素

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Clinical characteristics and risk factors of the elderly with allergic rhinitis

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【Abstract】 Objective To investigate the clinical characteristics and risk factors of allergic rhinitis (AR) in the elderly. **Methods** A total of 236 AR patients treated in Beijing Royal Hospital of Integrative Chinese Medicine from January 2018 to December 2022 were enrolled into the study group. According to the age, they were divided into a young and middle-aged group (aged 18–59 years old; $n=102$) and an elderly group (age ≥ 60 years old; $n=134$). A control group enrolled 160 elderly volunteers treated in the same hospital during the same period, who matched the elderly AR group in age and gender but without allergic disease. Firstly, the young and middle-aged AR group and the elderly AR group were compared in the clinical characteristics, and then a binary logistic regression model was used to analyze the factors affecting the AR onset in the elderly in reference to the control group. SPSS 19.0 was used for data analysis. Comparison between two groups was performed using χ^2 test. **Results** There were no statistically significant differences in the gender ratio and incidence peak among the AR patients in different age groups. The rate of positive allergen tests in elderly AR patients (32.09%, 43/134) was lower than that in the young and middle-aged AR group (68.63%, 70/102) and the difference was statistically significant ($P<0.05$). The AR type in elderly group was mostly intermittent (53.73%, 72/134) and the severity was mostly mild (63.43%, 85/134); the AR type in young and middle-aged group was mostly persistent (60.78%, 62/102), and the severity was equally mild (50.00%, 51/102) and moderate-to-severe (50.00%, 51/102), the differences being statistically significant ($P<0.05$). The incidence of throat discomfort/cough in elderly AR patients (29.85%, 40/134) was lower than that in young and middle-aged group (46.08%, 47/102) with statistically significant difference ($P<0.05$), but there were no statistically significant differences in other accompanying diseases. Binary logistic regression analysis indicated that pet ownership, exposure to occupational dust, family history of AR, and history of asthma were independent factors affecting the onset of AR in the elderly ($OR=1.752, 2.036, 1.992, 3.916; P<0.05$). **Conclusion** Compared with the young and middle-aged patients, the elderly AR patients have lower positive rate of allergen tests and milder clinical manifestations and disease. It is clinically necessary to pay attention to the screening and diagnosis

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of AR in the elderly to reduce the rates of the missed diagnoses and misdiagnoses. It is also necessary to emphasize the screening for AR in the elderly with clinical symptoms and high risk factors such as pet ownership, exposure to occupational dust, family history of AR and history of asthma.

【Key words】 aged; allergic rhinitis; clinical characteristics; risk factor analysis

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随着工业、经济以及城市化的不断进程,近年来,我国变应性鼻炎(allergic rhinitis, AR)发病率整体呈上升趋势,加上老年人口基数的增大,老年AR问题逐渐受到关注^[1,2]。随着年龄的增长,机体免疫系统功能下降,老年人罹患各种疾病的风险增加,但与此同时,免疫系统功能的改变导致其对外界特异性抗原的免疫应答能力下降,老年变应性疾病患者临床症状与中青年患者之间存在差异,且临床诊疗难度更高^[3]。本研究旨在总结并观察老年AR患者临床特征及其患病危险因素,以期提高临床对老年AR诊断及鉴别能力。

1 对象与方法

1.1 研究对象

将2018年1月至2022年12月北京王府中西医结合医院诊治的236例成人AR患者纳为研究组,根据患者年龄段将其分为中青年组($n=102$)及老年组($n=134$);同时将医院同期接收的160例与老年组AR患者性别、年龄相似,但无变应性临床症状的老年志愿者作为对照组。本研究经医院伦理委员会批准(伦理批号:2018018),参与者均知情且同意。

研究组纳入标准:(1)AR患者均符合《变应性鼻炎诊断和治疗指南》(2015年)中相关诊断标准^[4];(2)均为初次发病;(3)神志清楚,可配合完成相关研究。对照组纳入标准:(1)年龄 ≥ 60 岁;(2)无变应性临床症状;(3)神志清楚,可配合完成研究。

排除标准:(1)临床资料不全;(2)合并心肝肾等重要器官功能严重障碍;(3)合并恶性肿瘤。

1.2 方法

1.2.1 变应原检查 采用标准化变应原点刺液(德国默克公司,阿罗格)进行变应原点刺筛查,按照说明书相关方法判断测试结果。

1.2.2 血清过敏原检测 采集患者外周静脉血3~5 ml,高速离心机分离血清待用,使用过敏原特异性IgE抗体检测试剂盒、免疫检测仪定量分析血清中变应原sIgE抗体含量。sIgE浓度 >0.35 IU/L或总IgE >100 IU/L为阳性。

1.2.3 AR分型标准 根据患者临床症状将其分

为间歇性AR及持续性AR。间歇性AR:鼻塞、流清涕、打喷嚏、鼻痒等临床症状发作时间 <4 d/周,或病程 <4 周。持续性AR:上述临床症状发作时间 ≥ 4 d/周,或总病程 ≥ 4 周^[5]。

1.2.4 AR严重程度 根据AR对患者日常生活的影响程度将其分为轻度及中-重度。轻度为对生活质量无影响;中-重度为有以下一项或多项,如不能正常睡眠、日常活动、体育锻炼等,对生活产生影响^[6]。

1.2.5 老年AR患病的危险因素分析 结合临床经验及文献资料^[7-8],将性别、吸烟、吸二手烟、家中养花、饲养宠物、粉尘/化学性气体接触史、被褥晾晒、房间打扫、房屋潮湿、每日睡眠时间等可能影响AR发病的相关指标作为自变量,采用二元logistic回归模型分析影响老年AR患病的危险因素。

1.3 统计学处理

采用SPSS 19.0统计软件进行数据分析。计数资料用例数(百分率)表示,采用 χ^2 检验。将单因素分析有统计学意义的变量进行多因素logistic回归分析。 $P<0.05$ 为差异有统计学意义。

2 结果

2.1 老年及中青年AR患者性别比例及发病月份比较

老年AR患者中男性70例,女性64例,发病月份集中在当年11月至次年2月,占比41.04%(55/134);中青年组AR患者中男性53例,女性49例,发病月份集中在当年11月至次年2月,占比42.16%(43/102),差异均无统计学意义。

2.2 老年及中青年AR患者变应原阳性检出率比较

老年组AR患者变应原阳性检出率为32.09%(43/134),青年组为68.63%(70/102),差异有统计学意义($\chi^2=30.983$, $P<0.05$)。

2.3 老年及中青年组AR患者AR分型及病情严重程度比较

老年及中青年AR患者AR分型及严重程度比较,差异均有统计学意义(均 $P<0.05$;表1)。

2.4 老年及中青年AR患者伴随症比较

老年AR患者咽喉不适/咳嗽发生率低于中青年组,差异均有统计学意义($P<0.05$);其余伴随症状比较,差异均无统计学意义(表2)。

表 1 老年及中青年 AR 患者 AR 分型及病情严重程度比较

Table 1 Comparison of AR type and disease severity between elderly and young and middle-aged patients with AR [n(%)]

Group	n	AR type		Severity	
		Intermittent	Persistent	Mild	Moderate-to-severe
Elderly AR	134	72(53.73)	62(46.27)	85(63.43)	49(36.57)
Young and middle-aged AR	102	40(39.22)	62(60.78)	51(50.00)	51(50.00)
χ^2		4.894		4.280	
P value		0.027		0.039	

AR: allergic rhinitis.

表 2 老年及中青年 AR 患者伴随症状比较

Table 2 Comparison of accompanying symptoms between elderly and young and middle-aged patients with AR [n(%)]

Group	n	Nose bleeding	Throat discomfort/cough	Running nose pus	Hearing loss	Itchy eyes/ears
Elderly AR	134	23(17.16)	40(29.85)	41(30.60)	7(5.22)	15(11.19)
Young and middle-aged AR	102	20(19.61)	47(46.08)	41(40.20)	3(2.94)	11(10.78)
χ^2		0.232	6.553	2.354	0.744	0.010
P value		0.630	0.010	0.125	0.388	0.921

AR: allergic rhinitis.

2.5 老年 AR 发病的单因素分析

单因素分析提示,老年 AR 患者与对照组饲养宠物、职业接触粉尘、AR 家族史、哮喘史、过敏史等资料比较,差异均有统计学意义($P<0.05$);其余指标比较,差异均无统计学意义(表 3)。

2.6 老年 AR 发病的多因素 logistic 回归分析

多因素 logistic 回归分析提示,饲养宠物、职业接触粉尘、AR 家族史、哮喘史是影响老年 AR 发病的独立因素($P<0.05$;表 4)。

3 讨论

AR 发病率高,据保守估计,全球大概有 5 亿左右的 AR 患者^[9]。有研究表明,随着年龄的增长,AR 患病率呈下降趋势,但随着我国老龄化的到来,老年 AR 也有流行增长趋势^[10]。本研究发
现,老年 AR 患者的变应原阳性检出率、AR 分型、临床症状严重程度以及伴随症状等与中青年相比存在差异。

表 3 老年 AR 发病的单因素分析

Table 3 Univariate analysis of influencing factors of AR in the elderly [n(%)]

Factors	Elderly AR group(n=134)	Control group(n=160)	χ^2	P value
Gender			0.198	0.656
Male	73(54.48)	83(51.88)		
Female	61(45.52)	77(48.13)		
Smoking	37(27.61)	40(25.00)	0.257	0.612
Passive smoking	46(34.33)	49(30.63)	0.457	0.499
Raising flowers at home	77(57.46)	84(52.50)	0.725	0.395
Pet ownership	44(32.84)	25(15.63)	12.027	<0.001
Exposure to occupational dust	28(20.90)	15(9.38)	7.751	0.005
Bedding drying			0.939	0.625
Never	21(15.67)	32(20.00)		
Occasional	76(56.72)	87(54.38)		
Frequent	37(27.61)	41(25.63)		
Room cleaning			0.254	0.614
Occasional	49(36.57)	54(33.75)		
Frequent	85(63.43)	106(66.25)		
House dampness	25(18.66)	25(15.63)	0.475	0.491
Daily sleep time>7 h	70(52.24)	88(55.00)	0.224	0.636
Opening windows frequently for ventilation	96(71.64)	127(79.38)	2.381	0.123
Interior decoration within 2 years	12(8.96)	14(8.75)	0.004	0.951
Family history of AR	30(22.39)	18(11.25)	6.622	0.010
History of asthma	28(20.90)	16(10.00)	6.803	0.009
History of allergy	23(17.16)	14(8.75)	4.693	0.030
Place of residence			0.354	0.552
Urban area	75(55.97)	84(52.50)		
Rural area	59(44.03)	76(47.50)		

AR: allergic rhinitis.

表 4 老年 AR 发病的多因素 logistic 回归分析

Table 4 Multivariate logistic regression analysis of influencing factors of AR in the elderly

Factor	<i>B</i>	<i>SE</i>	<i>Wald</i> χ^2	<i>OR</i>	<i>P</i> value	95% <i>CI</i>
Pet ownership	0.561	0.278	4.072	1.752	0.044	1.016–3.022
Exposure to occupational dust	0.711	0.255	7.774	2.036	0.006	1.235–3.356
Family history of AR	0.689	0.116	35.280	1.992	<0.001	1.587–2.500
History of asthma	1.365	0.435	9.847	3.916	0.002	1.669–9.185
History of allergy	1.266	0.677	3.497	3.547	0.062	0.941–13.369

AR: allergic rhinitis.

变应原皮肤点刺试验 (skin prick test, SPT) 是筛查过敏性疾病的常见手段,但随着年龄的增长,皮肤萎缩、血管减少、肥大细胞数量下降等变化均会影响 SPT 检测准确度。本研究中,老年 AR 患者 SPT 变应原筛查阳性率明显低于中青年 AR 组。很多研究也表明,年龄增长将降低 SPT 阳性发生率^[11,12],故有学者提出对于老年 AR 的诊断,应同时结合 SPT 及血清变应原特异性 IgE 检测^[13]。

本研究中,老年 AR 患者中间歇性及轻度 AR 者占比相对较多,伴随症状相对更少,与中青年者存在一定的差异。分析其原因:免疫衰老也会降低人体对变应原的免疫应答能力,减弱鼻黏膜对过敏原的刺激反应,进而减少、减轻临床症状。此外,老年人鼻腔黏膜萎缩导致鼻腔容积大,也是其临床表现不典型、症状较轻的原因之一。此外,本研究中不同年龄段 AR 患者发病高峰期均集中在当年 11 月至次年 2 月,与其他研究所报道的春秋季节不同,这可能与本研究的调查对象生活在北方,冬季气候寒冷、易感冒,故易诱导 AR 相关。

本研究并未对老年 AR 发病危险因素与中青年 AR 发病危险因素进行对比,但根据既往相关研究,老年 AR 发病危险因素与其他年龄段之间并无太大差异。本研究发现,具有饲养宠物、职业接触粉尘史、AR 家族史、哮喘史及过敏史的老年人,AR 发生风险更高。分析其原因:宠物毛发、皮屑均可能作为过敏原,增加人体 AR 患病概率;职业性接触粉尘本身就是一种过敏原,粉尘刺激还会加重原有 AR 病情;AR 具有一定的遗传易感性,已有研究发现某些基因的单核苷酸多态性与 AR 特异反应性相关^[14];哮喘与 AR 均具有相似的病理、生理机制,且鼻腔防护功能减弱、分泌物被肺部吸收、鼻-支气管反射及系统性炎症反应等均与 AR 和哮喘有关^[15]。

综上,与中青年相比,老年 AR 患者 SPT 阳性率更低,临床表现及病情严重程度更轻,建议临床注重具有饲养宠物、职业性接触粉尘、AR 家族史及哮喘史等危险因素的老年人群的 AR 筛查。

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