

· 临床研究 ·

老年住院患者口腔卫生状况及其影响因素

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【摘要】目的 调查老年住院患者口腔卫生状况并分析其影响因素。**方法** 将2021年1月至2022年6月中部战区总医院收治的312例老年患者纳入研究对象。调查患者一般人口学资料,采用汉化版 Kayser-Jones 简明口腔健康检查(BOHSE)量表调查其口腔卫生状况,采用自制量表调查患者住院期间口腔卫生行为,采用日常生活能力量表评估患者生活自主活动能力。采用SPSS 20.0软件进行数据分析。根据数据类型,组间比较分别采用 t 检验、方差分析及 χ^2 检验。采用多元线性回归模型分析影响老年住院患者口腔卫生状况的相关因素。**结果** 老年住院患者 BOHSE 量表总得分为 (7.91 ± 1.27) 分,其中口腔卫生状况维度得分最高,为 (1.46 ± 0.26) 分,其次是天然牙状况及牙齿周围和(或)义齿覆盖的牙龈维度。单因素分析提示,性别、吸烟、饮酒、受教育程度、住院期间刷牙频率、住院期间是否获得口腔护理帮助、是否获得口腔检查、患者日常生活活动能力、是否长期卧床等因素均影响老年住院患者口腔健康检查量表得分 ($P < 0.05$)。多元线性回归分析提示,性别、吸烟、饮酒、住院期间刷牙频率、获得口腔护理帮助、口腔检查、既往口腔卫生行为、日常生活活动能力及长期卧床是影响老年住院患者口腔卫生状况的相关因素 ($\beta = -3.784, 1.757, 1.123, -0.892, -0.971, -1.343, 1.834, 2.156, 4.254; P < 0.05$)。**结论** 老年住院患者口腔卫生状况整体不佳,临床更应注重日常生活活动能力低、长期卧床患者的口腔卫生状况,而劝导患者戒烟戒酒、提供更多的口腔护理帮助,加强口腔检查力度,在改善老年住院患者口腔卫生状况中具有一定的意义。

【关键词】 老年人;住院患者;口腔卫生状况;影响因素

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Oral hygiene status of elderly inpatients and its influencing factors

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【Abstract】 Objective To investigate the oral hygiene status of elderly inpatients and analyze its influencing factors. **Methods** Totally 312 elderly patients admitted between January 2021 and June 2022 in General Hospital of Central Theater Command were enrolled as the research subjects. Kayser-Jones brief oral health status examination (BOHSE) was used to investigate the oral hygiene status (10 items including lymph node, lips, tongue, mucosa of cheek/floor of mouth and maxilla, gingiva around the teeth and (or) covered by dentures, salivary secretion and its effect on tissues, natural teeth status, denture status, dental occlusion status at masticatory position, oral hygiene status). SPSS statistics 20.0 was used for statistical analysis. Data comparison between two groups was performed using t test, analysis of variance or χ^2 test depending on data type. Multivariate linear regression analysis was used to analyze the related influencing factors of oral hygiene status of elderly inpatients. **Results** Investigation showed that the total score of BOHSE scale in elderly inpatients was (7.91 ± 1.27) points, and the score of oral hygiene status dimension was the highest at (1.46 ± 0.26) points, followed by the natural teeth status and gingiva around the teeth and (or) covered by dentures. Univariate analysis showed that gender, smoking, drinking, education level, frequency of teeth brushing during hospitalization, access to oral care assistance during hospitalization, oral examination, previous oral hygiene behaviors, activities of daily living and long-term bed rest were related factors affecting the oral hygiene status of elderly inpatients ($P < 0.05$). Multivariate linear regression analysis suggested that gender, smoking, drinking, frequency of teeth brushing during hospitalization, access to oral care assistance, oral examination, previous oral hygiene behaviors, activities of daily living and long-term bed rest were related factors affecting the oral hygiene status of elderly inpatients ($\beta = -3.784, 1.757, 1.123, -0.892, -0.971, -1.343, 1.834, 2.156, 4.254; P < 0.05$). **Conclusion** The overall oral hygiene status of elderly inpatients is not good. It is necessary to pay clinical attention to the oral hygiene status of patients with low activities of daily living and long-term bed rest. It is of certain significance to improve the oral hygiene status of elderly inpatients by persuading patients to quit smoking and drinking, providing more oral care assistance and strengthening oral examination.

【Key words】 aged; inpatients; oral hygiene status; influencing factor

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口腔是整个机体的重要组成部分,口腔健康与全身健康之间密切相关。有研究表明,不良口腔状况将增加各类心血管疾病发生风险^[1,2]。全国第四届口腔健康流行病学调查显示,老年人群口腔问题众多^[3]。当前大多数研究集中在关于社区老年人群口腔健康的调查上,而缺乏住院期间老年人的口腔健康调查资料^[4]。有研究表明,不良口腔健康状况将增加住院患者衰弱发生风险,影响其预后^[5]。为全面了解老年住院患者口腔卫生现状及其相关影响因素,本研究对老年住院患者口腔卫生状况展开调查,并就其影响因素进行分析。

1 对象与方法

1.1 研究对象

将2021年1月至2022年6月中部战区总医院收治的312例老年患者纳入为研究对象。纳入标准:患者年龄≥60岁;无张嘴困难,无口腔外伤;知情并自愿参与本研究。排除标准:合并精神障碍或认知障碍;无法配合口腔检查。

1.2 方法

(1)调查患者一般人口学资料,包括年龄、性别、吸烟史、饮酒史、既往及目前所患疾病、受教育程度、医疗付费方式、住院期间陪护人员、是否长期卧床(将只在室内生活、全天卧床或大部分时间卧床1个月以上定义为长期卧床)等资料。(2)采用汉化版 Kayser-Jones 简明口腔健康检查(brief oral health status examination, BOHSE)量表^[6]调查患者口腔卫生情况。量表共包含10个条目,各条目得分0~2分,任意项目得分≥1分定义为异常,量表得分越高,口腔健康状况越差。(3)采用自制量表调查患者住院期间口腔卫生行为,包括住院期间每日刷牙频率、住院期间是否获得口腔护理帮助、是否获得口腔检查等。(4)按照《中国居民口腔健康指南》^[7]中推荐的预防性口腔健康行为标准,调查患者既往口腔卫生行为。将每年至少进行1次口腔检查、1次洁牙、早晚刷牙、使用含氟牙膏中,至少有3项回答为肯定者视为口腔卫生行为合格者。(5)采用日常生活能力量表^[8]评估患者生活自主活动能力,量表总得分14~56分,得分越高,生活能力越低,任意两个项目评分≥2分或总得分超过22分,则可定义为日常生活功能有明显损害。

1.3 统计学处理

采用SPSS 20.0统计软件进行数据分析。计量资料用均数±标准差($\bar{x} \pm s$)表示,两组间比较采用独

立样本 t 检验,多组间比较采用方差分析;计数资料用例数(百分率)表示,采用 χ^2 检验。采用多元线性回归模型分析影响老年住院患者口腔卫生状况的相关因素。 $P<0.05$ 为差异有统计学意义。

2 结果

2.1 老年住院患者口腔卫生状况统计

调查发现,老年住院患者BOHSE量表总得分为(7.91±1.27)分,其中口腔卫生状况维度得分最高(1.46±0.26)分,异常人数占比也最高,其次是天然牙状况及牙齿周围和(或)义齿覆盖的牙龈维度(表1)。

表1 老年住院患者口腔卫生状况统计

Table 1 Oral hygiene status statistics of elderly inpatients
($n=312$)

Item	Score	Abnormal cases
	(points, $\bar{x} \pm s$)	[n (%)]
Lymph node	0.13±0.03	4(1.28)
Lips	0.46±0.11	60(19.23)
Tongue	0.73±0.12	196(62.82)
Mucosa of cheek, floor of mouth and maxilla	0.69±0.15	153(49.04)
Gingiva around the teeth and(or) covered by dentures	1.21±0.19	266(85.26)
Salivary secretion and its effect on tissues	0.69±0.15	107(34.29)
Natural teeth status	1.36±0.25	274(87.82)
Denture status	0.72±0.13	151(48.40)
Dental occlusion status at masticatory position	0.46±0.09	120(38.46)
Oral hygiene status	1.46±0.26	280(89.74)

2.2 影响老年住院患者口腔卫生状况的单因素分析

单因素分析提示,年龄、性别、吸烟、饮酒、受教育程度、住院期间刷牙频率、住院期间是否获得口腔护理帮助、是否获得口腔检查、患者日常生活活动能力、是否长期卧床均影响老年住院患者口腔健康检查量表得分($P<0.05$;表2)。

2.3 影响老年住院患者口腔卫生状况的多元线性回归分析

以老年住院患者BOHSE得分作为因变量(Y),将单因素分析有意义的指标作为自变量,进行多元线性回归分析。结果提示,性别、吸烟、饮酒、住院期间刷牙频率、获得口腔护理帮助、口腔检查、既往口腔卫生行为、日常生活活动能力及长期卧床是影响老年住院患者口腔卫生状况的相关因素($P<0.05$;表3),所得回归方程为: $Y=46.58-3.78 \times 2+1.76 \times 4-0.89 \times 6-0.97 \times 7-1.34 \times 8+1.83 \times 9+2.16 \times 10+4.25 \times 11$ 。

表 2 影响老年住院患者口腔卫生状况的单因素分析

Table 2 Univariate analysis of oral hygiene status of elderly inpatients (points, $\bar{x}\pm s$)

Factor	<i>n</i>	Score	<i>F/t</i>	<i>P</i> value
Age			3.132	0.045
60- <75 years	123	7.71±1.15		
75- <90 years	94	7.97±1.09		
≥ 90 years	95	8.11±1.26		
Gender			8.789	<0.001
Male	166	8.51±1.26		
Female	146	7.23±1.31		
Education level			12.659	<0.001
Primary school and below	169	8.13±1.08		
Middle school	80	7.87±1.11		
College and above	63	7.36±1.17		
Family monthly income			0.325	0.723
<3 000 yuan	143	7.92±1.20		
3 000- <5 000 yuan	79	7.83±1.18		
≥ 5 000 yuan	90	7.96±1.19		
Smoking			4.494	<0.001
Yes	120	8.32±1.33		
No	192	7.65±1.25		
Alcohol drinking			3.615	<0.001
Yes	89	8.33±1.28		
No	223	7.74±1.31		
Medical payment method			0.174	0.840
Medical insurance	211	7.88±1.36		
Self-paying	81	7.96±1.43		
Others	20	7.99±1.37		
Caregiver			0.076	0.927
Children	250	7.91±1.26		
Spouse	39	7.87±1.31		
Others	23	7.94±1.32		
Frequency of teeth brushing during hospitalization			14.742	<0.001
Never	110	8.63±1.34		
Once/d	161	7.64±1.25		
≥ twice/d	41	7.03±1.23		
Access to oral care assistance during hospitalization			6.691	<0.001
Yes	81	7.05±1.26		
No	231	8.21±1.37		
Access to oral examination during hospitalization			7.369	<0.001
Yes	36	6.68±1.02		
No	276	8.07±1.07		
Previous oral hygiene behavior			5.274	<0.001
Qualified	84	7.33±1.21		
Disqualified	228	8.12±1.16		
Activities of daily living			7.255	<0.001
Obvious damage	94	8.65±1.17		
No obvious damage	218	7.59±1.19		
Presence or absence of long-term bed rest			4.645	<0.001
Yes	66	8.62±1.35		
No	246	7.72±1.41		

表 3 影响老年住院患者口腔卫生状况的多元线性回归分析

Table 3 Multivariate linear regression analysis of oral hygiene status of elderly inpatients

Factor	β	<i>SE</i>	<i>t</i>	<i>P</i> value
Constant term	46.583	4.554	11.369	<0.001
Age	4.034	2.631	1.369	0.085
Gender	-3.784	1.163	3.573	<0.001
Education level	-1.225	0.633	1.266	0.094
Smoking	1.757	0.692	2.698	0.031
Alcohol drinking	1.123	0.538	1.465	0.074
Frequency of teeth brushing during hospitalization	-0.892	0.213	2.964	0.013
Access to oral care assistance during hospitalization	-0.971	0.351	-3.116	0.008
Access to oral examination during hospitalization	-1.343	0.422	-4.114	<0.001
Previous oral hygiene behavior	1.834	0.564	3.216	<0.001
Activities of daily living	2.156	0.271	3.165	0.004
Long-term bed rest	4.254	0.873	6.157	<0.001

$R=0.766$, $R^2=0.587$, adjusted $R^2=0.582$, $F=48.784$, $P<0.001$.

3 讨论

口腔健康是身体健康的重要组成部分,由年龄导致的口腔结构及功能退行性改变,老年人牙齿脱落、咬合不良、牙周炎、龋齿等口腔问题众多^[9]。而老年住院患者疾病躯体负担加重,日常生活活动能力普遍降低,导致其口腔健康行为普遍不佳。不良口腔状况可能会引起疼痛及营养不良,增加患者医疗开销,甚至衰弱的发生风险^[10]。故调查老年住院患者口腔卫生状况,并分析相关影响因素,在临床中具有一定意义。

本研究采用 BOHSE 量表进行口腔卫生调查,结果显示,老年住院患者 BOHSE 量表总得分为 (7.91±1.27) 分,其中口腔卫生状况维度得分最高,异常人数占比最高,其次是天然牙状况及牙齿周围和(或)义齿覆盖的牙龈维度,提示老年住院患者口腔卫生状况整体不佳。多元线性回归分析发现,性别、吸烟、饮酒、住院期间刷牙频率、获得口腔护理帮助、口腔检查、既往口腔卫生行为、日常生活活动能力及长期卧床是影响老年住院患者口腔卫生状况的相关因素。

分析各因素对老年住院患者口腔卫生状况的影响的相关原因,具体如下。(1)性别。本研究发现,老年女性患者 BOHSE 量表总得分更低,其口腔卫生状况更好,与赵彩均等^[11]研究结果相似。这可能与女性口腔卫生健康习惯更好相关。(2)吸烟史及饮酒史。香烟及酒精中有害物质将影响牙龈微循环,损害口腔黏膜上皮,增加牙龈炎及口腔黏膜纤维化风险,降低口腔健康,本研究中吸烟饮酒史患者住院期间口腔健康状况更差^[12-14]。故建议向患者普及吸烟饮酒对口腔健康的不良影响,劝诫其戒烟戒酒。(3)住院期间刷牙频率。每日按时进行刷牙是最基本也是最有效的口腔清洁方式,但住院期间,不少患者生活自理能力下降,加上老年人多存在低自尊的心理特点,不愿意主动向他人求助,故其每日口腔清洁次数较住院前均有所下降。本研究 312 例被调查者中仅有 41 例老年住院患者每日刷牙频率≥2 次。故应积极调动患者对口腔卫生的重视度,嘱咐其保持良好口腔卫生习惯。(4)获得口腔护理帮助及口腔检查。本研究中,获得口腔护理帮助及口腔检查的老年住院患者 BOHSE 量表得分均更低,提示提供适当的口腔护理帮助及口腔健康监督,在改善患者住院期间口腔卫生状况中具有一定的潜能。(5)既往口腔卫生习惯。本研究发现,既往口腔卫生行为合格的老年患者住院期间口腔卫生状况 BOHSE 得分高于既往口腔卫生行为不合格者,这与既往口腔卫生行为合格者已经养成良好的口腔清洁习惯、在惯性影响下其住院期间依旧能保持口腔清洁习惯相关。(6)日常生活活动能力及长期卧床。本研究发现,日常生活活动能力较低者及长期卧床者,口腔卫生状况均更差。这与日常生活活动能力较低者及长期

卧床者疾病严重程度更高、自主活动能力更差、自我更难完成口腔清洁工作相关^[15]。故应提高该类患者的口腔健康干预力度,嘱咐其家属或照护人主动帮助患者进行口腔清洁工作,同时可根据患者口腔状况,给予口腔护理产品,改善其口腔健康状况。

综上,老年住院患者口腔卫生状况整体不佳,临床更应注重日常生活活动能力低、长期卧床患者的口腔卫生状况,而劝导患者戒烟戒酒、提供更多的口腔护理帮助,加强口腔检查力度,在改善老年住院患者口腔卫生状况中具有一定的意义。

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