

内蒙古地区中晚期结直肠癌患者的结直肠癌相关知识认知现状及影响因素研究

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Cognition of Colorectal Cancer-related Knowledge and Influencing Factors of Patients with Middle- and Advanced-stage Colorectal Cancer in Inner Mongolia

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Abstract: Objective To investigate the cognition of colorectal cancer-related knowledge and influencing factors of patients with middle- and advanced-stage colorectal cancer in ethnic minority areas of Inner Mongolia. **Methods** According to the national population and the prevalence of colorectal cancer, 277 patients with colorectal cancer were selected by stratified and random sampling in Inner Mongolia. The patients were surveyed in Baotou, Chifeng, Bayannaoer, and other hospitals. The questionnaire included patients' basic information, cognition of colorectal cancer risk factors and screening knowledge, screening information, etc. **Results** Before suffering from the disease, the patients' knowledge of colorectal cancer (risk

factors, early screening knowledge, treatment methods) was low. About 54.9% of patients were unaware of high risk factors for colorectal cancer, 75.8% of patients did not understand the knowledge of early screening of colorectal cancer, and 37.5% of patients did not understand the treatment of colorectal cancer. The main influencing factors of colorectal cancer cognition were education level and occupation. Patients who work in institutions and enterprises and with higher education level had better cognition. **Conclusion** Patients with middle- and advanced-stage colorectal cancer in Inner Mongolia have poor knowledge and awareness of risk factors and screening of colorectal cancer before diagnosis. Education level and

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occupation are factors influencing colorectal cancer cognition, therefore, people with low knowledge rate of colorectal cancer and low education level as well as unemployed laid-off people should be given priority intervention.

Key words: Colorectal cancer; Cognition; Health education

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摘要: **目的** 调查内蒙古少数民族地区中晚期结直肠癌患者的结直肠癌相关知识认知现状及影响因素。**方法** 按照全国人口数以及结直肠癌的患病率进行分层, 随机抽样内蒙古地区277例结直肠癌患者, 在包头市、赤峰市、巴彦淖尔市等医院对结直肠癌患者进行问卷调查。问卷内容包括患者基本情况、对结直肠癌危险因素和筛查知识的认知、筛查的信息等。**结果** 患病前患者对于结直肠癌相关知识(高危因素、早筛知识、治疗手段)的认知水平较低。54.9%的患者不了解结直肠癌的高危因素。75.8%的患者不了解结直肠癌的早筛知识, 37.5%患者不了解结直肠癌的治疗手段。结直肠癌认知情况的主要影响因素是受教育程度和职业; 机关及企事业单位、受教育程度越高的患者, 其认知情况越好。**结论** 内蒙古地区中晚期结直肠癌患者在诊断前对结直肠癌危险因素和筛查知识的认知较差, 受教育程度和职业是结直肠癌认知情况的影响因素, 因此, 结直肠癌知识的知晓率低、文化程度较低、无业下岗的人群应该优先进行干预。

关键词: 结直肠癌; 认知; 健康教育

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0 引言

结直肠癌(colorectal cancer, CRC)在癌症发病率中排名第三, 在癌症死亡率中排名第二^[1], 并且发展中国家和年轻人患病人数逐年增加^[2-3]。据国家癌症中心的最新数据显示, 2019年我国结直肠癌新发病例约11万, 死亡病例约5万, 分别位于癌症发病和死亡病例数的第四位和第五位^[4]。

临床中, 大多数患者在诊断时为晚期结直肠癌, 预后较差^[5]。转移性结直肠癌患者的5年生存率约为14%, 明显低于早期诊断的患者^[6]。因此, 降低晚期结直肠癌患者的比例, 促进大肠癌的早诊早治, 有利于提高大肠癌的预后生存。CRC筛查技术在减少这种疾病的负担方面发挥着至关重要的作用, 增加了患者生存机会^[7]。对筛查知识认知不足会影响筛查^[8], 进而影响早期CRC的检测。因此, 公众对CRC相关知识的认识在早期CRC的检测、诊断和治疗中发挥着重要作用。以往的研究评估发现, 大多数公众对CRC知识的认知不足^[9], 考虑到资源有限, 有必要确定教育干预的最优先人群, 为了解决这一问题, 阐明CRC患者被

确诊前对CRC的认知是有必要的。因此, 本研究评估内蒙古地区中晚期结直肠癌患者对CRC相关知识认知及影响因素, 为后续CRC健康教育提供参考依据。

1 资料与方法

1.1 资料

根据美国癌症联合委员会(AJCC)第8版结直肠癌(TNM)分期系统^[10], 在入选的医院依据病理诊断选择中晚期结直肠癌患者。纳入标准: 临床确诊的Ⅱ~Ⅳ期CRC患者; 年龄≥18岁; 无任何精神障碍, 能够完成调查。排除标准: 严重的身体、认知和(或)语言障碍, 不能完成问卷或者拒绝签署调查问卷。所有患者均签署知情同意书。

1.2 方法

本研究源自中国一项以医院为基础的、多中心、横断面研究的一部分^[11], 对于中晚期结直肠癌患者人群, 考虑到不同地区文化及社会经济的多样性, 将中国划分为7个大区, 从每一个行政大区中随机抽取一个城市中省、市肿瘤医院和三级甲等综合医院的中晚期结直肠癌患者为研究对象。本研究选择包头医学院第一附属医院、包头医学院第二附属医院、赤峰市医院、巴彦淖尔市中心医院4家医院进行调查。本研究在河南省肿瘤医院机构审查委员会批准(第2019273号), 并在包头医学院第一附属医院获得医院伦理委员会备案。

1.3 样本量

依据全国中晚期结直肠癌患者发病率以及不同地区人口数构成进行分层, 计算样本量(具体样本量和抽样方法请见参考文献^[11]), 内蒙古少数民族地区共抽取277例结直肠癌患者, 无应答率为0。

1.4 问卷内容

本研究旨在收集患者的社会人口统计学信息, 以及患者对CRC危险因素知识认知、CRC治疗手段知识认知、CRC筛查及其知识来源。危险因素: “在得病前, 了解哪几项CRC的风险因素?” CRC治疗手段: “得病前, 了解哪几项CRC治疗手段?” CRC筛查: “在得病前, 了解哪几项CRC筛查方式?” 知识来源: “从哪些途径了解CRC相关知识?”。上述每个问题分别列出了10、6、7和10个选项。任何被选择的选项都得分为1分, 而如果患者选择了“都不了解”, 则得分为0分。因此, 每个问题的总分分别为9、5、6和9分。本研究于2019年9月和10月在河南省肿瘤医院

和包头医学院第一附属医院进行预调查，明确本研究的标准化问卷调查。

1.5 统计学方法

原始数据由两名训练有素的调查员使用EpiData软件V.3.1进行数据录入、双核对。采用SPSS25.0进行数据的统计分析。相关知识频数采用百分比表示，并采用卡方检验比较按人口统计学信息、癌症类型、疾病分期等因素分类的认知情况， $P<0.05$ 为差异有统计学意义。影响CRC患者认知情况的因素采用多元线性回归分析。将单因素 $P<0.10$ 的变量纳入多因素线性回归模型。

2 结果

2.1 研究对象的一般情况

本研究共纳入277例结直肠癌患者，男169例，女108例，平均年龄 61.34 ± 9.51 岁，具体构成见表1。

表1 研究对象的一般人口学特征
Table 1 General demographic characteristics of the study subjects

Characteristics	n(%)
Gender	
Male	169(61.0)
Female	108(39.0)
Age (years)	
30-45	16(5.8)
46-60	107(38.6)
>60	154(55.6)
Educational status	
Primary school and below	61(22.0)
Middle school	98(35.4)
Secondary vocational and high school	75(27.1)
College degree or above	43(15.5)
Colonoscopy screening	
Yes	8(2.9)
No	269(97.1)
Work in the medical industry	
Yes	19(6.9)
No	258(93.1)
Matrimony	
Married	265(95.7)
Other	12(4.3)
Type of disease	
Colon cancer	158(57.0)
Rectal cancer	112(40.4)
Other	7(2.6)
Occupation	
Institutions, enterprises and institutions	26(9.4)
Service industry, Private enterprise	79(28.5)
Unemployed layoffs, etc.	172(62.1)
Stage of disease	
II	71(25.6)
III	103(37.2)
IV	103(37.2)

2.2 结直肠癌患者认知现状

患者的认知水平：在患病前，患者对于结直肠癌相关知识（高危因素、早筛知识、治疗手段）的认知水平较低。54.9%的患者不了解结直肠癌的高危因素，患者最了解的高危因素：年龄为50~74岁（23.8%），吸烟、酗酒（24.2%），结直肠癌、癌病史（20.2%）。75.8%的患者不了解结直肠癌的早筛知识，患者最了解的早筛知识：高龄人群便隐血检测（14.4%）、高龄人群肠镜筛查（13.4%）、高龄人群问卷调查（13.0%）。37.5%的患者不了解结直肠癌的治疗手段，患者最了解的治疗手段：手术（56.3%）、化疗（53.4%）、放疗（24.2%），见表2。

2.3 不同特征CRC患者对结直肠癌认知情况的差异

结果显示，结直肠癌患者认知情况在受教育程度（ $\chi^2=9.681$, $P=0.021$ ）、职业（ $\chi^2=0.977$, $P=0.046$ ）上差异有统计学意义。受教育程度在高危因素、早筛知识、治疗手段的认知方面差异有统计学意义，见表3。

2.4 结直肠癌患者认知的多元线性回归分析

多元线性回归显示，职业、受教育程度是对结直肠癌认知的影响因素，机关及企事业单位、受教育程度越高的患者，其认知情况越好，见表4。

3 讨论

大部分CRC患者对CRC危险因素、筛查知识和治疗手段认识有限，其中大多数CRC患者不了解CRC相关知识。中晚期结直肠癌患者受教育程度越高、在机关及企事业单位工作，则对CRC相关知识认知较好。本研究显示，中晚期结直肠癌患者在诊断前对结直肠癌危险因素的认知有限，54.9%的患者不了解结直肠癌的危险因素。在其他国家和地区也报告了类似的结果：例如，在黎巴嫩，83%的参与者不知道CRC的危险因素，但56%的参与者知道筛查的必要性^[12]。同样，在巴基斯坦，只有59.9%的大学生知道CRC风险因素^[13]。在加勒比地区^[14]、中国香港^[15]和约旦^[16]，人们对CRC危险因素的认识也很差，尽管所在地区与研究人群不同，但研究结果均显示人们对结直肠癌危险因素的认知不足。在一项研究中，46%的患者将结直肠癌归因于常见的危险因素，包括吸烟、饮酒、超重或肥胖、缺乏体育活动、低蔬菜摄入量、低水果摄入量、高红色和加工肉类摄入量^[17]；然而，对其他危险因素的认识，如缺乏体育活动和年龄，仍然很低^[18]。在本研究中，中晚期结直肠癌患者对

表2 中晚期结直肠癌患者对相关知识认知情况

Table 2 Cognition of relevant knowledge in patients with middle- and advanced-stage colorectal cancer

	<i>n</i>	frequency(%)
High risk factors		
Age range from 50 to 74 years	66	23.8
History of colorectal cancer and cancer	56	20.2
History of chronic diarrhea and chronic constipation or bloody stools	50	18.1
History of chronic appendicitis or appendectomy	22	7.9
History of chronic cholecystitis or cholecystitis resection	17	6.1
Lack of physical activity and insufficient exercise	30	10.8
Smoking, alcohol abuse and other unhealthy living habits	67	24.2
Excessive intake of red meat, low vegetables and fiber intake and other unhealthy diet	43	15.5
Other	2	0.7
Before suffering the illness, none of the above was understood	152	54.9
Screening knowledge		
50-74 years old, need to conduct a questionnaire survey before deciding whether to undergo colonoscopy	36	13.0
50-74 years old, occult blood in the stool at least one time per year	40	14.4
50-74 years old, colonoscopy at least once every five years	37	13.4
High-risk groups, at least one colonoscopy screening per year	26	9.4
Other	0	0
Before suffering the illness, none of the above was understood	210	75.8
Access to knowledge		
Community hospital propaganda and education	59	21.3
Large portals or forums	26	9.4
Medical academic websites/forums for doctors (eg. DXY)	23	8.3
TV and radio programs of disease science popularization	59	21.3
WeChat public account and Weibo of disease science popularization	38	13.7
Have a relative or friend who has had colorectal cancer	52	18.8
Online medical platform (eg. haodf.com)	19	6.9
Patients or groups of patients	27	9.7
Other	2	0.7
The above information channels are rarely read	149	53.8
Treatment		
Endoscopic treatment	41	14.8
Surgical treatment	156	56.3
Radiation therapy	67	24.2
Chemotherapy	148	53.4
Targeted therapy	27	9.7
Traditional Chinese medicine treatment	28	10.1
The above is not understood before suffering the illness	104	37.5

CRC最常见的危险因素，如年龄、不健康的生活方式和饮食、家族癌症史或个人癌症史等了解。健康教育工作者应该更多关注不被人熟知的风险因素，而不是常见的风险因素。

本研究显示，75.8%的患者不了解结直肠癌的早筛知识。以往的研究^[19]相似，大多数晚期结直肠癌患者在诊断前对CRC筛查的知识和认识严重有限。在本研究中，只有2.9%的晚期结直肠癌患者在诊断前接受过结肠镜检查，这一数字明显低于其他研究^[20]。因此，必须提高人们对CRC筛查的知识和认识，提高筛查率。

本研究显示，37.5%患者不了解结直肠癌的治疗手段，患者最了解的治疗手段：手术56.3%，化疗53.4%，放疗24.2%。目前尚无患者对结直肠癌治疗手段认知的研究。本研究显示，受教育程度

是CRC相关知识认知水平的影响因素，这与其他研究^[21-23]一致，研究显示与本科及以上教育水平的人相比，小学及以下的患者对CRC的认知水平较低。可能原因是，患者可以通过课程和工作经验获得有关CRC的信息，这可能会提高对CRC相关知识的认知。因此，在设计卫生教育干预措施时，应特别重视受教育程度较低的人群。职业是影响认知的主要因素，这与其他研究^[24]一致，与机关及企事业单位的患者相比，服务业、务工等对CRC的认知水平较低，可能原因是机关及企事业单位的患者学历较高，认知较好。教育水平较低、无业、下岗的群体缺乏CRC的知识和认识，这可能是由于获得知识的机会有限或缺乏财政支持。因此，这些个体应该是进行干预措施的主要目标人群。

本研究显示，大多数患者通过家人和朋友、

表3 结直肠癌患者认知得分在人群特征方面比较

Table 3 Comparison of cognitive scores of colorectal cancer patients in terms of population characteristics

	High risk factors		Early screening knowledge		Treatment		Source of knowledge		Score	
	1	≥2	0	≥1	0	≥1	1	≥2	2	≥3
Gender										
Male	102	67	122	47	60	109	115	54	49	120
Female	75	33	85	23	44	64	77	31	40	68
χ^2	2.360		1.481		0.771		0.327		1.955	
P	0.124		0.224		0.380		0.567		0.162	
Matrimony										
Married	169	96	197	68	100	165	182	83	85	180
Other	8	4	10	2	4	8	10	2	4	8
χ^2	0.042		0.492		0.095		1.159		0.008	
P	0.838		0.483		0.758		0.282		0.927	
Age (years)										
30-45	10	3	8	5	1	12	9	4	1	12
46-60	64	39	74	29	40	63	69	34	32	71
>60	103	58	125	36	63	98	114	47	56	105
χ^2	1.095		2.374		5.186		0.430		4.133	
P	0.578		0.305		0.075		0.806		0.127	
Educational status										
Primary school and below	48	12	55	5	28	32	48	12	28	32
Middle school	64	34	73	25	39	59	72	26	31	67
Secondary vocational and high school	47	28	56	19	28	47	49	26	22	53
College degree or above	18	25	22	21	9	34	23	20	8	35
χ^2	15.968		21.710		7.392		9.675		9.681	
P	0.001		0.000		0.060		0.022		0.021	
Occupation										
Institutions, enterprises and institutions	12	14	17	9	9	17	14	12	8	18
Service industry, Private enterprise	51	28	65	14	31	48	64	15	26	53
Unemployed layoffs, etc.	114	58	125	47	64	108	114	58	55	117
χ^2	3.986		3.971		0.200		8.753		0.977	
P	0.136		0.137		0.905		0.013		0.046	
Work in the medical industry										
Yes	12	7	14	5	5	14	13	6	4	15
No	165	93	193	65	99	159	179	79	85	173
χ^2	0.005		0.012		1.097		0.008		1.148	
P	0.944		0.914		0.295		0.930		0.284	
Type of disease										
Colon cancer	100	58	120	38	61	97	112	46	51	107
Rectal cancer	74	38	82	30	42	70	75	37	37	75
Other	3	4	5	2	1	6	5	2	1	6
χ^2	1.598		0.301		1.691		0.489		1.066	
P	0.450		0.860		0.429		0.783		0.587	
Stage of disease										
II	44	27	54	17	23	48	48	23	19	52
III	62	41	70	33	37	66	70	33	32	71
IV	71	32	83	20	44	59	74	29	38	65
χ^2	1.858		4.433		2.095		0.496		2.064	
P	0.395		0.109		0.351		0.780		0.356	
Colonoscopy screening										
Yes	3	5	4	4	2	6	5	3	1	7
No	174	95	203	66	102	167	187	82	88	181
χ^2	2.489		2.668		0.180		1.456		0.180	
P	0.115		0.102		0.672		0.228		0.672	

电视广播节目、社区医院宣教等获得CRC相关知识，因此开展有组织的宣传活动，并设立CRC宣传周，可以增加公众对CRC的认知。多在电视和社交媒体上进行宣传活动有助于大众了解CRC。

本研究为现况研究，由于询问的相关问题为患者患病前，因此存在回忆偏倚，结果具有局限性。

利益冲突声明：

所有作者均声明不存在利益冲突。

表4 结直肠癌患者认知的多元线性回归

Table 4 Multiple linear regression of colorectal cancer patients' cognition

	β	SD	95%CI	P
Occupation				
Institutions, enterprises and institutions (reference group)				
Service industry, Private enterprise	-3.177	0.900	-4.948, -1.406	<0.001
Unemployed layoffs, etc.	-2.343	0.837	-3.991, -0.695	0.005
Educational status				
Primary school and below (reference group)				
Middle school	0.580	0.630	-0.660, 1.820	0.358
Secondary vocational and high school	1.497	0.666	0.186, 2.807	0.025
College degree or above	3.986	0.769	2.472, 5.499	<0.001

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