

Prevalence of Colorectal Cancer in Psychiatric Patients --- The Preliminary results of Colorectal Cancer screen

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Abstract

Colorectal cancer contributes over 600000 deaths and half-million new diagnostic cases each year. Yet, the study of correlation of psychiatric patients and colorectal cancer is rare. And there is lack of prevalence of colorectal cancer in psychiatric patients. The aim of this study was to demonstrate colorectal cancer prevalence in Taiwanese psychiatric patients to provide the reference for psychiatric professionals to improve the physical care for these patients. A "Quantitative immunoassay fecal occult blood test" and a questionnaire of habitual diet and daily health behavior were used to screen colorectal cancer to determine the prevalence in psychiatric populations. 2088 psychiatric patients were recruited to complete this screen. Average age was 57.33 ± 5.47 years. The positive rate of colorectal cancer was 9.9% and 8.1% for male and female respectively. Interestingly, the more psychiatric diagnosis the patients had, the more prevalence of colorectal cancer the patients had, and patients with 3 psychiatric diagnostic items had 1.62 fold risk of colorectal cancer to with 1 diagnosis. This survey showed that psychiatric patients have prevalence of colorectal cancer, and the more items of psychiatric diagnosis, the more risk of colorectal cancer these patients has. These preliminary data of this survey hopefully can be the reference for psychiatric professionals to improve the physical care for these patients.

Introduction

Colorectal cancer is a major contributor to disease morbidity and mortality worldwide and contributes over 600000 deaths and half-million new diagnostic cases each year. Hence, screening for colorectal cancer is a cost-effective prevention and control strategy and is presently commanding major attention. Numerous studies have demonstrated that there is correlation between healthy eating patterns and colorectal cancer, yet, the study of correlation of psychiatric patients and colorectal cancer is rare. And there is lack of prevalence of colorectal cancer in psychiatric patients. The aim of this study was to demonstrate colorectal cancer prevalence in Taiwanese psychiatric patients to provide the reference for psychiatric professionals to improve the physical care for these patients.

Materials and Methods

A "Quantitative immunoassay fecal occult blood test" and a questionnaire of habitual diet and daily health behavior were used to screen colorectal cancer and related health behaviors to determine the prevalence an its correlations with habitual diet and health behavior in psychiatric patients. Samples of this study were recruited from a psychiatric hospital in southern Taiwan.

Participants recruit:
Duration: January
1st, 2010 to December 31st, 2012
Participants: 50-69 y/o patients
underwent colorectal cancer
screening.
Setting:
Psychiatric
Kaohsiung hospital

Exclusion criteria:
1.less 50 y/o
2.Fail to provided
complete data of
colorectal cancer
screening test .

1. Filled out the checklist of health behaviors
2. Quantitative immunoassay fecal occult blood test for colorectal cancer

The higher the scores represent,
the more good health behavior
revealed.

Data analyzed
In the manner of
descriptive and
reference statistics
through means,
frequency, %
as well as
chi-square, odds
ratio respectively.

Results

2088 psychiatric patients (1011, 48.4% male and 1077, 51.6% female) were invited to complete this screen. Average age was 57.33 ± 5.47 years. The positive rate of colorectal cancer was 9.9% and 8.1% for male and female respectively. In the number of diagnostic items aspect, the more psychiatric diagnostic items the patients had, the more positive rate of colorectal cancer the patients had (7.9%, 9.6%, and 12.1% for the patients had 1, 2, and 3 psychiatric diagnosis, respectively, $p = 0.045$), and patients with 3 psychiatric diagnostic items had 1.62 fold risk of colorectal cancer to with 1 diagnostic item ($p = 0.02$).

Table 1. Psychiatric Patient characterization and chi-square analysis results of colorectal cancer screening

		n (%)	Positive n (%)	Negative n (%)	Chi-square
Sex	Male	1011(48.4%)	100(9.9%)	911(90.1%)	0.147
	Female	1077(51.6%)	87(8.1%)	990(91.9%)	
Age	50-57 y/o	1151(55.1%)	99(8.6%)	1052(91.4%)	0.677
	58-64 y/o	696(33.3%)	63(9.1%)	633(90.9%)	
	≥65 y/o	241(11.5%)	25(10.4%)	216(89.6%)	
Mental illness diagnosis	One item	1260(60.3%)	99(7.9%)	1161(92.1%)	0.045
	Two items	498(23.9%)	48(9.6%)	450(90.4%)	
	More items	330(15.8%)	40(12.1%)	290(87.9%)	
Family history of colorectal cancer	Family history	53(5.3%)	29(54.7%)	16(30.2%)	8(15.1%)
	No family history	955(94.7%)	613(64.2%)	242(25.3%)	100(10.5%)
Adequate intake of fruits and vegetables ¹	Yes	555(53.4%)	376(67.7%)	127(22.9%)	52(9.4%)
	No	484(46.6%)	292(60.3%)	132(27.3%)	60(12.4%)
Every exercise time	<30 mime ²	707(72.7%)	435(64.1%)	172(24.3%)	82(11.6%)
	30-59 mime ²	219(22.5%)	139(63.5%)	61(27.9%)	19(8.7%)
	60-120mime ²	35(3.6%)	23(65.7%)	8(22.9%)	4(11.4%)
	>121 mime ²	11(1.1%)	9(81.8%)	2(18.2%)	0(0%)
Health behavior score (out of 6) ²	1-2 score ²	357(38.1%)	210(58.8%)	101(28.3%)	46(12.9%)
	3-4 score ²	547(58.4%)	362(66.2%)	132(24.1%)	53(9.7%)
	5-6 score ²	32(3.4%)	23(71.9%)	8(25%)	1(3.1%)

¹Eating 1.5 bowls vegetables and 2 exchange fruits or 2.5 bowls vegetables and fruits at per day.

²Are based on whether there is a family history of colorectal cancer(Yes- 1 score, No- 0 score),Fruit and vegetable intake is adequate (Yes -1 score, No -0 score),Every exercise time(<30 minutes -1 score,30-59 minutes -2 score,60-120 minutes -3 score,>121 minutes -4 score) are calculated.

Table 2. Patients with mental illness diagnosis project chi-square analysis of health behaviors

		n (%)	One item n (%)	Two items n (%)	More items n (%)	Chi-square
Family history of colorectal cancer	Family history	53(5.3%)	29(54.7%)	16(30.2%)	8(15.1%)	0.34
	No family history	955(94.7%)	613(64.2%)	242(25.3%)	100(10.5%)	
Adequate intake of fruits and vegetables	Yes	555(53.4%)	376(67.7%)	127(22.9%)	52(9.4%)	0.04
	No	484(46.6%)	292(60.3%)	132(27.3%)	60(12.4%)	
Every exercise time	<30 mime	707(72.7%)	435(64.1%)	172(24.3%)	82(11.6%)	0.65
	30-59 mine	219(22.5%)	139(63.5%)	61(27.9%)	19(8.7%)	
	60-120mine	35(3.6%)	23(65.7%)	8(22.9%)	4(11.4%)	
	>121 mine	11(1.1%)	9(81.8%)	2(18.2%)	0(0%)	
Health behavior score (out of 6) ²	1-2 score	357(38.1%)	210(58.8%)	101(28.3%)	46(12.9%)	0.11
	3-4 score	547(58.4%)	362(66.2%)	132(24.1%)	53(9.7%)	
	5-6 score	32(3.4%)	23(71.9%)	8(25%)	1(3.1%)	

²Are based on whether there is a family history of colorectal cancer(Yes- 1 score,No- 0 score),Fruit and vegetable intake is adequate (Yes -1 score, No -0 score),Every exercise time(<30 minutes -1 score,30-59 minutes -2 score,60-120 minutes -3 score,>121 minutes -4 score) are calculated.

Table 3. Risk analysis of mental illness patients in the diagnosis and screening results

	All			Male			Female		
	OR	95% CI	P 值 ¹	OR	95% CI	P 值 ¹	OR	95% CI	P 值 ¹
One item	1			1			1		
Two items	1.25	0.871*1.796	0.23	1.14	0.691*1.868	0.62	1.4	0.824*2.369	0.22
more items	1.62	1.096*2.387	0.02	1.18	0.680*2.043	0.56	2.26	1.296*3.972	<0.001

¹Binary logistic regression, P with One items of psychiatric diagnosis comparison P <0.05 as a significant difference.

Conclusion

This survey showed that psychiatric patients have higher prevalence of colorectal cancer, and the more items of psychiatric diagnosis, the more risk of colorectal cancer these patients have. These preliminary data of this survey hopefully can be the reference for psychiatric professionals to improve the physical care for these patients.