Research Paper

Influence of Integrated Traditional Chinese and Western Medicine Nursing on the Living Quality of Patients with Angina Pectoris under the Concept of Evidence Based Nursing

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To analyze the effect of integrated traditional Chinese and Western medicine nursing on the living quality of patients with angina pectoris under the concept of evidence based nursing. A total of 85 patients with angina pectoris in our hospital from July 2018 to December 2019 were selected as the research objects. They were divided into two groups according to the order of admission. The 42 cases in the control group were given routine nursing and 43 cases in the study group were given integrated traditional Chinese and Western medicine nursing under the concept of evidence based nursing. The living quality, self-rating anxiety scale score, self-rating depression scale score, complications and nursing satisfaction were compared between the two groups. Compared with those before intervention, the scores of each dimension of Seattle Angina Questionnaire of the two groups after intervention were significantly improved ($p<0.05$) and the scores of each dimension of Seattle Angina Questionnaire of the study group were higher than those of the control group ($p<0.05$). Compared with those before the intervention, the self-rating anxiety scale and self-rating depression scale scores of the two groups after intervention were significantly decreased ($p<0.05$) and the study group had lower self-rating anxiety scale and self-rating depression scores ($p<0.05$). Compared with the control group, the study group had lower incidences of insomnia, irritability, abdominal distention, urinary retention and low back pain ($p<0.05$). Compared with the control group, the study group had higher nursing satisfaction ($p<0.05$). The integrated traditional Chinese and Western medicine nursing under the concept of evidence based nursing was helpful to improve the living quality and nursing satisfaction of patients with angina pectoris and reduce their adverse emotions and complications.

Key words: Evidence based nursing, integrated traditional Chinese and western medicine nursing, coronary heart disease, angina pectoris

Coronary Heart Disease (CHD) is a cardiovascular disease and angina pectoris is a common symptom of this disease[1]. Investigation shows that the mortality rate of angina pectoris is high. Most of the patients are male. The patients often suffer from chest pain and wheezing, which endangers their physical and mental health[2]. It is found that the incidence of diseases is related to sudden decrease or interruption of coronary blood and is also related to other basic diseases, mental state and behavior habits[3]. Therefore, it is very important for patients to take reasonable nursing intervention while receiving active scientific treatment, which plays a powerful auxiliary role in improving symptoms and controlling illness. Evidence based nursing requires the evidence based group to seek evidence based basis around nursing problems and work out a nursing plan that conforms to patient's characteristics through scientific research conclusions and in combination with experience. In clinical practices, it can often play the advantages of pertinence and scientificity[4]. Integrated traditional Chinese and Western medicine nursing is to use Chinese and Western medicine nursing programs at the same time, thus improving nursing quality from different nursing concepts[5]. Based on this, this study carried out integrated traditional Chinese and Western medicine nursing for patients with angina pectoris under the concept of evidence based nursing, as reported below.

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MATERIALS AND METHODS

Clinical data:

85 patients with angina pectoris in our hospital from July 2018 to December 2019 were selected. Grouping method; according to the order of admission, they were divided into control group (n=42) and study group (n=43). Gender, age, course of disease, New York Heart Association (NYHA)[6] heart function classification and Traditional Chinese Medicine (TCM) syndrome differentiation were compared between the two groups (Table 1), p>0.05, indicating that there was no statistical significance in difference and the data was comparable.

TABLE 1: GENERAL DATA

General data	Control group (n=42)	Study group (n=43)	t/χ^2	p
Gender (case)			0.282	0.595
Male	24	27		
Female	18	16		
Age (y)	41~75 (57.25±5.08)	40~74 (58.09±5.35)	0.742	0.460
Course of disease (y)	2~21 (8.65±2.87)	2~20 (9.27±3.04)	0.966	0.337
NYHA heart function classification			0.379	0.827
Level I	10	8		
Level II	19	20		
Level III	13	15		
TCM syndrome differentiation (case)			1.023	0.796
Cold accumulated in heart channel	9	7		
Deficiency of both qi and yin	14	16		
Stagnation of phlegm and blood	9	12		
Chest obstruction	10	8		

Inclusion and exclusion criteria:

Inclusion criteria: Diagnosed with angina pectoris and confirmed by coronary angiography and electrocardiogram; not suffering from mental diseases; classified as Grade I to Grade III according to NYHA cardiac function classification; angina pectoris occurred 30 d before inclusion by this study, which was confirmed by related imageological examination.

Exclusion criteria: Lack of normal language and communication skills; age <18 y old; serious loss of heart, liver and kidney function; abnormal immune system; patients living alone or without family care; lack of clinical data.

Nursing methods:

Control group receives routine nursing. Specifically, it includes: monitoring vital signs, including blood pressure and pulse, teaching patients self-test methods and preparing for first aid, in the case of angina pectoris, making the patients sit quietly immediately, calming their emotions, instructing them to take slow and deep breath and take proper nitroglycerin and contacting doctors in time; giving health guidance on medication, diet, exercise and other aspects, other daily life nursing.

Study group receives integrated traditional Chinese and Western medicine nursing under the concept of evidence based nursing, including:

The intervention group was set up. All the team members received unified training, so that they could accurately understand the concept of evidence based nursing, integrated traditional Chinese and Western medicine nursing and the specific implementation methods.

Data was collected to clarify nursing problems by consulting case data, asked patients/family members for relevant information, comprehensively analyzed the data and clarified the problems existing in daily nursing including lack of professional knowledge and poor mental state, etc.

Data query for evidence based basis: The query channels included internet and books. The knowledge about angina pectoris was obtained through the above

query channels. Meanwhile, combined with the previous clinical nursing experience and the actual condition of patients, the nursing plan was put forward according to the nursing factors.

TCM nursing, dialectical nursing, cold accumulated in heart channel: It is advisable to warm yang to replenish the heart, dispel the cold and dredge the channel and soak feet with warm water before going to bed every day. Ginger hot drink is recommended; deficiency of both qi and yin, it is advisable to dredge the channel and remove the stasis, invigorate qi and tonify yin and insist on regular work and rest. Patients are assisted in palms and feet massage and are recommended to take balance diet. Pulse activating decoction is recommended; stagnation of phlegm and blood: it is advisable to tonify qi and resolve the phlegm, invigorate the blood circulation and remove the stasis. The inpatient wards are kept clean and daily ventilation is maintained. Patients are required to ban smoking and take moderate exercise. Laver and radish soup is recommended; chest obstruction: it is advisable to soothe the liver, regulate qi, harmonize the blood and regulate the menstruation. Patients/their family members are required to accurately identify the related risk factors of angina pectoris and actively avoid the related risk factors. Chaihushugan decoction is recommended. Emotional nursing: It is advisable to communicate with patients, help them learn about CHD and angina pectoris, realize the important role of emotional factors in the process of disease treatment and recovery or teach them Taijiquan and Qigong meditation and help them rationally use the principle of emotional interaction to smooth their emotions. Acupoint massage: Shenmen point, Hegu point, Neiguan point, Zhongwan point and other acupoints are selected for massage one by one with proper techniques until soreness is felt. The massage is performed 10 min/time and 3 times/d. Auricular point sticking: multiple acupoints distributed on both, including Shenmen point, sympathetic points and heart points, are selected. Cowherb seeds are fixed at the above acupoints with adhesive tape. The above acupoints are slightly pressed after fixing for 5 min/time and 3 times/d. The seeds are changed once every 3 d.

Western medicine nursing-The patients are closely observed when angina pectoris occurs, covering location, degree and duration; health education: the usage and dosage of various drugs are introduced and marked on the outer packaging; patients are required to take drugs on time and accurately and carry nitroglycerin and Suxiao jiuxin pills; foods with high protein, less salt, low calorie and rich in cellulose are recommended. Coarse grains are increased. The patients take 5 meals a day, with less food at each; for constipation patients, glycerine enema is given in time; the patients quit smoking and drinking, work and rest regularly, get enough sleep and take aerobic exercise every day; psychological counseling: communicating patiently, using comforting words and encouraging words, learning the true thoughts of patients, answering questions raised by patients in time and giving typical successful cases in the past; guiding patients to breath evenly, deeply and carefully for 10 min/time. Discharge guidance: adding the WeChat accounts of patients/their family members before discharge and communicating with them online through WeChat; contacting the patients and informing them to go to the hospital for reexamination through WeChat and telephone.

Observation indicators:

Comparison of living quality: The Seattle Angina Questionnaire (SAQ)[7] was used for evaluation. SAQ includes five items, namely stable angina pectoris (Question 2), disease cognition (Question 9-11), treatment satisfaction (Question 5-8), angina pectoris attack frequency (Question 3-4) and physical limitation (Question 1). The higher the score is, the higher the living quality of the corresponding dimension of SAQ.

Comparison of Self-Rating Anxiety Scale (SAS) [8] and Self-Rating Depression Scale (SDS)[9]. SAS and SDS were used to evaluate the degree of anxiety and depression of the two groups before and after intervention. The critical values were 50 points and 53 points respectively. The higher the score is, the more serious the anxiety and depression is.

Comparison of complications: The incidence of complications, including insomnia, irritability, abdominal distension, urinary retention and lumbago, was counted.

Comparison of nursing satisfaction: Self-made satisfaction questionnaires were distributed after the intervention. The total score of the questionnaire was 100 points. The survey results were divided into "very satisfied" (patient score ≥90 points), "generally satisfied" (90 points >patient score ≥60 points) and "dissatisfied" (patient score <60 points). The proportion of patients who were very satisfied and generally satisfied was regarded as satisfaction.

Statistical processing:

All the data obtained in this study were analyzed by SPSS 22.0 and the measurement data conforming to normal distribution were expressed by mean±standard deviation. Independent sample t test was used for comparison between groups and paired sample t test was used for comparison within groups; the counting data was expressed in percentage and the χ^2 test was used for comparison between groups. The test level α=0.05 and p<0.05 indicated that the difference was statistically significant.

RESULTS AND DISCUSSION

Comparison of living quality: Before intervention, there was no significant difference in SAQ scores between the two groups (p>0.05). Compared with those before intervention, the SAQ scores of the two groups increased significantly (p<0.05) and the SAQ scores of the study group were higher than those of the control group (p<0.05) (Table 2 and Table 3).

Comparison of SAS and SDS scores: Before intervention, there was no significant difference in SAS and SDS scores between the two groups (p>0.05). Compared with those before intervention, the SAS and SDS scores of the two groups decreased significantly (p<0.05) and the SAS and SDS scores of the study group were lower than those of the control group (p<0.05) (Table 4).

Comparison of complications: Compared with the control group, the study group had lower incidence of insomnia, irritability, abdominal distension, urinary retention and low back pain (p<0.05) (Table 5).

Comparison of nursing satisfaction: Compared with the control group, the nursing satisfaction of the study group was higher (p<0.05) (Table 6).

TABLE 2: COMPARISON OF LIVING QUALITY ($\bar{x}\pm s$, POINT)

Group	Case	Stable angina pectoris		Disease cognition		Treatment satisfaction	
		Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention
Control group	42	45.34±10.07	51.25±12.28$^{\Delta}$	44.81±9.14	49.85±8.52$^{\Delta}$	70.27±11.89	75.73±9.16$^{\Delta}$
Study group	43	46.11±10.23	63.02±13.34$^{\Delta}$	45.33±9.36	65.72±8.01$^{\Delta}$	71.34±12.02	80.27±8.83$^{\Delta}$
t	-	0.350	4.230	0.259	8.850	0.413	2.327
p	-	0.727	0.000	0.796	0.000	0.681	0.022

Note: $^{\Delta}$p<0.05 compared with those before intervention (the same group)

TABLE 3: COMPARISON OF LIVING QUALITY

Group	Case	Stable angina pectoris		Disease cognition		Treatment satisfaction	
		Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention
Control group	42	61.29±11.42	70.38±8.35$^{\Delta}$	58.62±11.06	63.73±10.17$^{\Delta}$	70.27±11.89	75.73±9.16$^{\Delta}$
Study group	43	62.07±12.04	74.26±6.07$^{\Delta}$	60.07±12.45	72.14±9.64$^{\Delta}$	71.34±12.02	80.27±8.83$^{\Delta}$
t	-	0.306	2.455	0.567	3.914	0.413	2.327
p	-	0.760	0.016	0.572	0.000	0.681	0.022

Note: $^{\Delta}$p<0.05 compared with those before intervention (the same group)

TABLE 4: COMPARISON OF SAS AND SDS SCORES ($\bar{x}\pm s$, POINT)

Group	Case	SAS score		SDS score	
		Before intervention	After intervention	Before intervention	After intervention
Control group	42	57.47±2.63	55.59±2.42$^{\Delta}$	58.63±4.25	56.48±3.84$^{\Delta}$
Study group	43	58.12±2.74	47.05±2.26$^{\Delta}$	59.45±4.34	48.23±2.72$^{\Delta}$
t	-	1.115	16.820	0.880	11.451
p	-	0.268	0.000	0.381	0.000

Note: $^{\Delta}$p<0.05 compared with those before intervention (the same group)

TABLE 5: COMPARISON OF COMPLICATIONS CASE (%)

Group	Case	Insomnia	Irritability	Abdominal distension	Urinary retention	Lumbago
Control group	42	8 (19.05)	13 (30.95)	13 (30.95)	17 (40.48)	25 (59.52)
Study group	43	2 (4.65)	5 (9.30)	4 (9.30)	5 (11.63)	16 (37.21)
χ^2	-	4.242	4.753	6.224	9.218	4.237
p	-	0.039	0.029	0.013	0.002	0.040

TABLE 6: COMPARISON OF NURSING SATISFACTION CASE (%)

Group	Case	Very satisfied	Generally satisfied	Dissatisfied	Satisfaction
Control group	42	14 (33.33)	20 (47.62)	8 (19.05)	34 (80.95)
Study group	43	18 (41.86)	23 (53.49)	2 (4.65)	41 (95.35)
χ^2	-	-	-	-	4.242
p	-	-	-	-	0.039

TCM classifies angina pectoris as "chest obstruction" and "heartache" and thinks that the disease is caused by diet, emotion and other pathogenic factors. Therefore, scientific treatment and comprehensive nursing in combination with etiology are advocated in both disease treatment and clinical nursing[10]. Some studies have found that integrated traditional Chinese and Western medicine nursing is developed based on the development of Western medicine nursing and combined with the theory of traditional Chinese medicine. It includes both Western medicine nursing scheme and traditional Chinese medicine nursing scheme, playing a positive role in ensuring curative effect and improving prognosis when applied to clinical practices[11]. In this study, integrated traditional Chinese and Western medicine nursing was carried out under the concept of evidence based nursing. The concept of evidence based nursing emphasizes the practical nursing problems. It puts forward nursing plan in line with the actual situation of patients based on scientific research conclusions and clinical experiences; TCM nursing emphasizes "dialectical nursing". It often divides patients into different syndrome types and formulates nursing plans according to syndrome types, so that patients can enjoy targeted nursing services; Western medicine nursing intervention focuses on sports, diet and other aspects, aiming at providing thoughtful and meticulous all round nursing services for patients[12-14]. According to the results of this study, the SAQ scores of the study group after intervention were higher than those of the control group, indicating that integrated traditional Chinese and western medicine nursing under the concept of evidence based nursing would help to improve the living quality of patients with angina pectoris. It may be because this study took evidence based nursing as a guide to implement integrated traditional Chinese and western medicine nursing. Based on the whole and focusing on details, the advantages of evidence based nursing, TCM nursing and western medicine nursing were given full play and all the nursing measures were reasonable and scientific, which was beneficial to speed up the disease outcome and improve the living quality.

Affected by angina pectoris, economic expenditure and excessive worry about treatment effect, patients are often accompanied by emotional disorders after getting sick. Studies have shown that emotions are related to the occurrence of angina pectoris and anxiety and depression can directly affect sympathetic nerve function and cause a series of adverse events, including myocardial ischemia and arrhythmia. Therefore, it is of great significance to strengthen psychological intervention and reduce negative emotions. According to the results of this study, the SAS and SDS scores of the study group after intervention were lower than those of the control group, indicating that integrated traditional Chinese and western medicine nursing under the concept of evidence based nursing would help to reduce the negative emotions of patients with angina pectoris. The analysis showed that the reduction of negative emotions in patients with angina pectoris was related to disease control and symptom relief and was also benefited from the emotional nursing and psychological counseling measures taken in this study.

Guided by the concept of evidence based nursing, this study implemented evidence based integrated traditional Chinese and western medicine nursing and used measures of Chinese and western medicine nursing more reasonably. Among it, data collection and evidence support were helpful to improve the nursing

scheme; health education helped to increase patient's cognition of CHD and angina pectoris and helped patients face the disease and the treatment calmly; syndrome differentiation was helpful to alleviate the disease; balanced diet and moderate exercise were helpful to enhance patient's disease resistance, improve rehabilitation speed and quality and reduce adverse events. According to the results of this study, the study group had lower incidence of insomnia, irritability, abdominal distension, urinary retention and low back pain than the control group, indicating that integrated traditional Chinese and Western medicine nursing under the concept of evidence based nursing would help to reduce the complications of patients with angina pectoris. According to the analysis, comprehensive and high quality clinical care could improve the prognosis and prevent complications to a certain extent. The results of this study also showed that the study group had higher nursing satisfaction than the control group, indicating that integrated traditional Chinese and western medicine nursing under the concept of evidence based nursing was beneficial to improve nursing satisfaction. It may be because the clinical nursing mode adopted in this study is different from the conventional nursing mode and the nursing services are continuously improved to better meet the high requirements of patients for nursing quality.

To sum up, the implementation of integrated traditional Chinese and Western medicine nursing under the concept of evidence based nursing can improve the living quality and nursing satisfaction of patients with angina pectoris and reduce their adverse emotions and complications.

Conflicts of interest:

The authors declared no conflict of interest.

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