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An Integrated Medical-Nursing Traditional Chinese Medicine Nursing Ward Round for Recurrent Bleeding after Endoscopic Treatment of Esophagogastric Varices in Liver Cirrhosis: A Case Report

Authors: Lian Xiaojing, Liu Feifei, Wang Xiaolan, Guo Huimin, Zhang Lili

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Abstract

This article summarizes the practical experience of an integrated medical-nursing Traditional Chinese Medicine nursing ward round for a patient with liver cirrhosis complicated by recurrent bleeding following painless endoscopic esophageal variceal sclerotherapy and gastric variceal tissue adhesive injection therapy for ruptured esophageal and gastric varices. Based on the patient's clinical data, the responsible nurse presented the case, the physician analyzed the condition, and the medical-nursing team jointly discussed the patient's symptoms to collaboratively formulate individualized nursing measures. Through integrated medical-nursing ward rounds that combine treatment with nursing care, personalized, refined, and comprehensive nursing outcomes were achieved, thereby improving nursing quality and promoting patient health.

Full Text

An Integrated Medical-TCM Nursing Ward Round Case for a Patient with Recurrent Bleeding after Endoscopic Treatment of Esophageal and Gastric Varices in Liver Cirrhosis

LIAN Xiaojing¹, **LIU Feifei**¹, **WANG Xiaolan**², **GUO Huimin**², **ZHANG Lili**^{2*} ¹. Integrative Medicine Center, Beijing Youan Hospital, Capital Medical University, Beijing 100069 ². Department of Nursing, Beijing Youan Hospital, Capital Medical University, Beijing 100069

Abstract

This article summarizes the practical experience of integrated medical-TCM nursing ward rounds for a patient with liver cirrhosis and esophagogastric variceal bleeding who experienced recurrent bleeding after undergoing painless endoscopic esophageal variceal sclerotherapy and gastric variceal tissue glue injection. Based on the patient's clinical data, the responsible nurse presented the case, the physician analyzed the condition, and the medical-nursing team jointly discussed the patient's symptoms to collaboratively develop individualized nursing measures. Through integrated medical-nursing rounds that combine treatment and nursing care, personalized, refined, and comprehensive nursing outcomes were achieved, thereby improving nursing quality and promoting patient health.

Keywords: Esophageal and gastric variceal bleeding; Liver cirrhosis; Endoscopy; Doctor-nurse integration; Traditional Chinese Medicine; Nursing ward rounds

Esophagogastric variceal bleeding (EGVB) is one of the most fatal complications in patients with cirrhotic portal hypertension, characterized by sudden onset, rapid progression, and mortality rates as high as 84%. It represents a primary cause of death in patients with liver cirrhosis [1-2]. Currently, the most effective treatments for EGVB include endoscopic sclerotherapy, tissue glue injection, and variceal ligation [3]. Although combined sclerotherapy and tissue glue injection has achieved favorable clinical outcomes, this treatment approach still has notable limitations and shortcomings. For instance, sclerotherapy may lead to rebleeding, esophageal ulcers, perforation, and stricture, while tissue glue injection can cause bleeding during glue extrusion and ectopic embolism [4]. In addition to symptomatic treatment, such patients require scientific, comprehensive, individualized, and precise high-quality nursing care to promote recovery, prevent adverse events, and ultimately improve therapeutic efficacy while reducing complication rates.

In recent years, with the growing popularity of Traditional Chinese Medicine (TCM), public awareness of TCM treatments and demand for TCM characteristic nursing have continuously increased [5]. TCM characteristic nursing, grounded in TCM theory and implementing syndrome differentiation-based care, enhances nursing quality throughout the care process by integrating TCM's holistic concepts with syndrome-based nursing approaches. Traditional nursing rounds can no longer meet patient needs. To address this situation, our department has established a medical-nursing integrated TCM nursing round model that emphasizes TCM characteristic nursing techniques, achieving favorable application results. This article reports the case of a patient with liver cirrhosis and esophagogastric variceal bleeding who experienced recurrent bleeding after painless endoscopic esophageal variceal sclerotherapy and gastric variceal tissue glue injection, managed through integrated medical-TCM nursing rounds.

1.1 Medical History

The patient was a 53-year-old male who was admitted to the ward on July 21, 2023, via emergency stretcher due to “alcoholic liver disease for 5 years and melena.”

Present Illness: See Figure 1 [Figure 1: see original paper]

Past Medical History: Hypertension for over 3 months, self-administered antihypertensive medication (details unknown) with blood pressure monitoring. Denied history of coronary heart disease, diabetes, infectious diseases, trauma, or surgery. Reported allergy to “ibuprofen sustained-release capsules.”

1.2 Physical Examination

At admission, the patient’s vital signs were: temperature (T) 36.2°C, pulse (P) 70 beats/min, respiration (R) 19 breaths/min, blood pressure (BP) 104/58 mmHg, height 176 cm, and weight 67 kg. Physical examination revealed normal development and good nutritional status. The patient was conscious with a natural expression but an acutely ill appearance, in a self-selected position with normal gait and cooperative during examination. Notable findings included negative palmar erythema, anemic appearance, pale eyelids and nail beds, normal breath sounds, regular heart rhythm, abdominal distension with soft abdominal wall, no muscle tension, tenderness or rebound tenderness, negative Murphy’s sign, non-palpable liver and spleen, questionable shifting dullness, no hepatic percussion tenderness, liver upper border at the 5th intercostal space along the right midclavicular line, bowel sounds 3 times/min, no lower extremity edema, negative ankle clonus, and negative flapping tremor.

Four Diagnostic Methods of TCM: - **Inspection:** Weak spirit, anemic appearance, dull and pale complexion, emaciated body; pale tongue without coating - **Auscultation and Olfaction:** Weak voice, rapid breathing, no abnormal odor detected - **Inquiry:** Dark purple hematochezia, even black in color, aversion to cold, cold extremities, no sweating, normal urination, slight thirst with preference for warm drinks - **Palpation:** Thin and weak pulse

Onset Solar Term: Mid-fu (middle period of dog days)

1.3 Auxiliary Examinations

Laboratory tests upon admission showed: - **Complete Blood Count:** Red blood cell count $2.77 \times 10^{12}/L \downarrow$, hemoglobin $56g/L \downarrow$, C-reactive protein $0.5mg/L$ - **Coagulation Profile:** - **Prothrombin** potassium 4.53 mmol/L , sodium 143.3 mmol/L - **Liver Function:** Alanine aminotransferase $7 \text{ U/L} \downarrow$, aspartate aminotransferase $13 \text{ U/L} \downarrow$, AST/ALT ratio 1.86, total bilirubin 14 mol/L , direct bilirubin 4.8 mol/L , albumin 37.5 g/L

Imaging Examinations: - **Ultrasound:** Diffuse liver disease, splenomegaly - **Echocardiography:** Mild tricuspid regurgitation, decreased left ventricular diastolic function - **Abdominal Ultrasound:** Trace ascites

1.4 Diagnosis

TCM Diagnosis: Hematemesis

Western Medicine Diagnosis: Upper gastrointestinal bleeding, esophagogastric variceal rupture bleeding, alcoholic liver cirrhosis decompensated stage

Differential Diagnosis: This condition should be differentiated from hemoptysis in TCM: (1) Hemoptysis originates from the lungs and airways, while hematemesis originates from the stomach and esophagus; (2) Hemoptysis presents with bright red blood often mixed with frothy sputum, whereas hematemesis shows dark purple blood mixed with food residues; (3) Hemoptysis is often preceded by throat itching and chest tightness, with blood expectorated during coughing, while hematemesis is accompanied by gastric discomfort and nausea, with blood vomited out; (4) After hemoptysis, blood-tinged sputum may persist for days but stool color remains normal, whereas hematemesis does not cause blood-tinged sputum but typically results in black stools; (5) Patients with hemoptysis often have chronic cough, pulmonary tuberculosis, asthma, or palpitations, while hematemesis patients usually have histories of stomach pain, hypochondriac pain, jaundice, or tympanites. These features allow for differentiation.

1.5 Treatment

Upon admission, the patient received critical care and first-level nursing with fasting and fluid restriction.

Western Medicine Treatment: Primarily included latamoxef sodium for anti-inflammation, carbazochrome sodium sulfonate for hemostasis, hemocoagulase bothrops atrox for hemostasis, omeprazole sodium for acid suppression, fluid replacement, and ornithine aspartate for reducing portal pressure.

TCM Treatment: Focused on strengthening the spleen, warming the middle jiao, nourishing blood, and stopping bleeding.

1.6 Treatment Process

See Figure 2 [Figure 2: see original paper]

2 Nursing Care

2.1 Nursing Assessments

Activities of Daily Living: Assessed using the Barthel Index (BI) [6], with a score of 45 points indicating moderate functional impairment.

Fall Risk: Evaluated using the Chinese version of the Morse Fall Scale (CMFS) [7], with a score of 45 points indicating moderate risk.

Sleep Quality: Assessed using the Pittsburgh Sleep Quality Index (PSQI) [8], which includes 7 items such as sleep quality and duration with total scores ranging 0-21 (lower scores indicate better sleep quality). The patient scored 18 points.

Pressure Injury Risk: Evaluated using the Braden Pressure Injury Risk Assessment Scale [9], with a score of 17 points indicating low-to-moderate risk.

Anxiety: Assessed using the Hamilton Anxiety Scale (HAMA) [10], which scores 14 physical and psychological symptoms over the past week using a 5-point scale (0=asymptomatic to 4=severe). Total scores of \$ \$7 indicate no anxiety, 8-14 possible anxiety, 15-21 definite anxiety, 22-29 marked anxiety, and \$ \$29 severe anxiety. The patient scored 22 points, indicating marked anxiety.

2.2 Nursing Plan

Based on the patient's symptoms and expected outcomes, a personalized, refined, and comprehensive nursing plan was developed with the following goals: accurately record intake and output to ensure fluid balance; alleviate anxiety caused by knowledge deficits through psychological counseling to maintain a positive mindset and good sleep; effectively prevent adverse events such as pressure injuries and catheter-related infections; and provide discharge health education covering medication guidance, lifestyle counseling, psychological support, and prevention and emergency management of rebleeding.

2.3 Nursing Diagnoses

1. Risk for deficient fluid volume: related to reduced effective circulating blood volume from gastrointestinal bleeding
2. Risk for asphyxiation: related to potential aspiration from hematemesis
3. Activity intolerance: related to hemorrhagic peripheral circulatory failure
4. Anxiety: related to intermittent bleeding and concerns about prognosis
5. Risk for impaired skin integrity: related to absolute bed rest requirements and intermittent hemochezia
6. Risk for catheter dislodgement: related to femoral vein catheterization
7. Disturbed sleep pattern: related to anxiety
8. Deficient knowledge: related to lack of understanding about proper diet, lifestyle, and medication adherence
9. Potential complication: hypovolemia

2.4 Nursing Interventions

2.4.1 Fluid Deficit Management The patient was instructed to maintain bed rest with slightly elevated lower extremities in supine position to ensure cerebral blood supply. Multiple intravenous access channels were established to enable rapid fluid resuscitation if the condition changed. Intake and output were accurately recorded.

2.4.2 Asphyxiation Prevention Airway patency was maintained by instructing the patient to turn his head to one side during hematemesis to avoid aspiration. An endotracheal intubation kit was kept at the bedside, and the patient was closely monitored for signs of asphyxiation. Oral and nasal blood was promptly cleared during hematemesis, with mechanical ventilation provided if necessary.

2.4.3 Activity Intolerance Management During the activity restriction period, the patient was assisted with all personal daily activities including eating, oral hygiene, skin care, and elimination. He was instructed to avoid straining during bowel movements and educated that active bleeding may cause syncope during or after defecation. The patient was guided to move slowly when sitting up or standing, to immediately return to bed and inform nurses if dizziness, palpitations, or sweating occurred, and to perform urination and defecation in bed.

2.4.4 Anxiety Management (1) Five-Element Music Therapy: This psychological therapy is based on TCM theory, which correlates the five musical tones with the five elements and different viscera. Specific musical compositions are used to regulate emotions, relieve stress, and improve mood [11]. Daily afternoon sessions of at least one hour were conducted using the patient's personal electronic device at 40-60 dB volume. Since the patient's condition primarily involved the liver, Jue mode and Gong mode melodies were selected according to the five-tone correspondence with the five elements and five viscera. Jue mode music embodies "wood" characteristics with representative works such as "Green Grass and Trees," "Leaves in Wind," "Gusu Journey," "Beautiful South," "Spring Breeze Success," and Jiangnan silk and bamboo music. Gong mode music embodies "earth" characteristics with works including "Spring River Flower Moon Night," "High Moon," and "Moonlight Sonata." Nurses provided libraries of both Gong and Jue mode music, allowing the patient to select multiple favorite pieces for looped playback. During listening, the patient was instructed to relax his body, eliminate distracting thoughts, close his eyes, and imagine beautiful things or life scenarios, stopping immediately if discomfort occurred.

(2) Emotional Care: - Desire Accommodation: This approach involves accommodating the patient's wishes and emotions to meet physical and psychological needs. Patients are encouraged to express themselves fully, venting deep-seated psychological conflicts and pain to release long-suppressed negative emotions, desires, and conflicts, followed by well-intentioned and sincere counseling. - **Counseling and Listening:** Through conversational communication, patients receive guidance and encouragement to actively express internal feelings of anxiety and depression. Nurses listen attentively and provide counseling and suggestion-based guidance to alleviate negative emotions.

2.4.5 Skin Integrity Management Due to absolute bed rest requirements, the patient was at risk for pressure injuries. He was instructed to turn frequently, with assistance provided when necessary, and skin condition was checked during shift handovers. Perianal skin cleanliness was emphasized due to frequent bowel movements.

2.4.6 Catheter Management Risk factors for catheter dislodgement were promptly assessed, and catheter risk evaluations were completed as required. The catheter was properly secured, with bedside handover inspections performed every shift to check for external exposure, puncture site condition, kinking, and dislodgement risk. The patient was educated about precautions when turning or moving with the catheter.

2.4.7 Sleep Pattern Management (1) Conventional Care: A sleep-conducive environment was arranged to accommodate the patient's sleep preferences and patterns. Treatments and nursing care were planned to minimize sleep disturbances.

(2) Ear Acupressure with TCM Technique: Ear acupressure is a traditional TCM non-pharmacological therapy with established clinical efficacy for insomnia [12], characterized as simple, convenient, economical, and effective—earning it the name “green therapy.” Selected acupoints included Shenmen, Subcortex, Liver, Gallbladder, Sanjiao, Heart, and Kidney. The material used was a new-generation ear acupressure device—micro-bian ear needles—different from traditional Vaccaria seeds or magnetic beads. Bian stone exhibits excellent thermal radiation properties with abundant trace elements. Research [13] has shown these elements can promote circulation and metabolism while enhancing red blood cell oxygen-carrying capacity. Bian stone also absorbs body heat and converts it into beneficial wide-band far-infrared radiation that increases blood flow velocity, improves internal circulation, and conducts along meridians to regulate qi, activate blood, unblock collaterals, and calm the spirit [14]. Pressing frequency: twice daily for 3-5 minutes each time, with soreness, numbness, distension, and pain as appropriate sensations. Any allergic reactions were to be reported promptly. During ward rounds, the responsible nurse performed the procedure while the physician guided acupoint selection and technique to ensure correctness and enhance therapeutic effect.

2.4.8 Knowledge Deficit Management Patients and families were assisted in understanding disease etiology, precipitating factors, and preventive treatment knowledge to reduce rebleeding risk. Dietary guidance emphasized small, frequent meals with nutritious, easily digestible food. Lifestyle counseling stressed regular routines, work-rest balance, maintaining optimistic mood, ensuring adequate rest, and avoiding chronic mental stress and overwork. Smoking and alcohol cessation were advised, with medication taken only under physician guidance and no arbitrary discontinuation. Patients and families learned early recognition of bleeding signs and emergency measures, with

prompt medical consultation for changes in upper abdominal pain patterns or occurrence of hematemesis and melena.

2.4.9 Health Education (1) Self-Management: Literature reports that post-treatment rebleeding is closely related to patient self-concept, self-responsibility, self-care skills, health knowledge level, and compliance with diet and medication. Encouraging patient participation in their own diagnosis and treatment process is decisive for preventing rebleeding. Patients learned early recognition of bleeding signs and correct emergency measures: immediate bed rest with quiet and activity restriction when experiencing dizziness, palpitations, or hematemesis/melena; lateral position during vomiting to prevent aspiration; and prompt hospital treatment.

(2) Family Support: After admission, the responsible nurse trained the primary family caregivers on basic disease knowledge, nursing points and precautions, psychological intervention measures, daily life considerations, nutritional support, family members' emotional self-regulation, and specific home care measures, including recognition of bleeding and timely hospital transfer.

2.5 Nursing Evaluation

After 28 days of intervention, the patient's bleeding stopped and his condition improved, with no lower extremity edema, nausea, or vomiting, and normal stool occult blood and coagulation function. On discharge day, the Barthel Index score was 0 (no dysfunction), Morse Fall Scale score was 20 (low risk), Braden Pressure Injury Risk score was 22 (no risk), HAMA anxiety score was 7 (no anxiety), and PSQI score was 4 (good sleep quality). Both patient and family expressed high satisfaction with treatment and nursing care.

3 Clinical Outcome

The patient experienced no nursing adverse events during hospitalization and was discharged on August 18, 2023. One-week post-discharge telephone follow-up revealed no hematemesis or melena.

4 Ward Rounds Process

4.1 Rounds Purpose

These rounds aimed to enhance nurses' professional competence and clinical skills for this disease while emphasizing humanistic care to provide more comprehensive, high-quality nursing. The rounds also sought to cultivate nurses' clinical thinking and professional abilities by identifying high-risk factors early and implementing prospective quality control to maintain continuity of nursing care.

4.2 Rounds Organization

Round Leaders: The department head nurse served as moderator, with the responsible nurse as primary examiner. Participants included the department's associate chief physician, attending physicians, other nursing staff, head nurses from various departments, and nursing backbone members. **Time:** July 21, 2023, 9:00-10:00 AM. **Location:** Integrated Medicine Center Physician's Office.

4.3 Rounds Implementation

The process included: (1) The moderator introduced participants and the round process; (2) The attending physician presented disease-related knowledge while the responsible nurse prepared round tools and medical records, conducting bedside rounds following nursing procedures while maintaining a quiet environment, respecting patient privacy and informed consent, demonstrating humanistic care and service etiquette, and patiently listening to patient complaints and opinions. The responsible nurse provided health education on daily living, diet, and emotional care at the bedside, reflecting humanistic care and TCM holistic nursing concepts; (3) Patient subjective feelings and satisfaction with nursing care were assessed—the patient reported good subjective feelings, high compliance, and high treatment satisfaction; (4) After examination, all personnel returned to the physician's office where the responsible nurse presented the case, proposed nursing diagnoses, and described related nursing measures; (5) The department's associate chief physician and all nurses discussed key points and difficulties to optimize nursing care, with invited teachers providing guidance; (6) The head nurse summarized. During rounds, the responsible nurse used illustrated PowerPoint presentations to cover case history, nursing problems, goals, measures, effects, and key/difficult content, with round time controlled within 30-60 minutes to reach consensus on discussed content.

4.4 Rounds Evaluation

Through integrated medical-nursing rounds, nurses gained deeper knowledge of the disease, increased emphasis on humanistic care, and improved the connotation and quality of specialized nursing. Nurses were encouraged to communicate more with patients, listen to their complaints, provide holistic care, and actively involve patients and families in diagnosis and treatment. Post-treatment follow-up was emphasized to monitor implementation of health education, thereby reducing disease recurrence, improving patient satisfaction, and enhancing home compliance.

This integrated medical-nursing ward round model demonstrated significant clinical effects. The responsible nurse analyzed existing nursing problems while the attending physician applied TCM syndrome differentiation and explained disease knowledge, enabling medical-nursing participation in patient condition communication, analysis, and on-site guidance for TCM operations. This approach allowed nurses to comprehensively and systematically master patient

conditions and understand holistic disease nursing. During rounds, the team jointly discussed and adjusted nursing plans, with nurses implementing daily living, emotional, medication, and dietary care while delivering accurate TCM characteristic nursing techniques. Relevant literature [15-16] reports that individualized, refined, and comprehensive nursing can effectively improve hemostasis efficacy by 5-10% and reduce short-term rebleeding risk while preventing disease recurrence.

Under the integrated medical-nursing ward round model, nurses can provide multifaceted nursing services according to actual patient conditions, improving psychological status and reducing complications while effectively enhancing patient satisfaction. During nursing care, medical staff educate patients about disease knowledge to improve cognition while providing psychological counseling and encouragement for negative emotions, eliminating adverse feelings and improving cooperation [17]. This achieves holistic nursing effects and warrants clinical application and promotion.

Patient Informed Consent: Publication of this case report was approved by the patient and family.

Conflict of Interest Statement: The authors declare no conflicts of interest.

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References: [1] Song JE, Kim BS. Endoscopic therapy and radiologic intervention acute gastroesophageal variceal bleeding[J]. *Clin Endosc*, 2019, 52(5):407-415. [2] Wang Zhihui, Kuang Wenchao, Zhou Haifei, et al. Observation on the efficacy of endoscopic tissue glue injection combined with ligation in the treatment of esophagogastric variceal bleeding[J]. *Heilongjiang Medicine*, 41(3):243-244. [3] Yang Lianyue, Bai Xueli. Expert consensus on diagnosis and treatment of esophagogastric variceal rupture bleeding due to cirrhotic portal hypertension (2019 edition)[J]. *Chinese Journal of Practical Surgery*, 2019, 39(12):1241-1247. [4] Romano G, Agrusa A, Amato G, et al. Endoscopic sclerotherapy for hemostasis of acute esophageal variceal bleeding[J]. *G Chir*, 2014, 35(3-4):61-64. [5] Yan Hainong, Xia Haiqin, Pan Pange. Application effect of quality evaluation in TCM nursing management of obstetrics and gynecology department[J]. *Journal of Traditional Chinese Medicine Management*, 2018, 26(16):63-64. [6] Cui Juan, Mao Fan, Wang Zhihui. Analysis of multiple chronic diseases coexisting in Chinese elderly residents[J]. *Chinese Journal of Public Health*, 2016, 32(1):66-69. [7] Chen Weiju, Peng Gangyi, Guangdong Provincial Health Department. *Clinical Nursing Documentation Standards - Specialty Volume*[M]. Guangzhou: Guangdong Science and Technology Press, 2009:132-135. [8] Cheng Ling, Zhu Xifang. Effect of psychological nursing combined with health education on pain and quality of life in patients with postherpetic neuralgia[J]. *International Journal of Nursing*, 2019, 38(16):2563-2565. [9] Xu Yongneng, Lu Shaoping, Huang Qiao, et al. Prevention and management of pressure injuries in elderly bedridden patients after discharge[J]. *International Journal of Nursing*, 2019, 38(16):2563-2565. [10] Shi

Chengdong, Pan Yongliang. Study on the correlation between Hamilton Depression and Anxiety Scales and Positive and Negative Affect Scale[J]. General Nursing, 2019, 17(2):140-142. [11] Jiang Yunlan, Liu Yixian, Li Yingxin, et al. Effect of pestle needle combined with five-element music therapy on anxiety and depression in insomnia patients with heart-spleen deficiency type due to malignant digestive system tumors[J]. Nursing Research, 2018, 32(17):70-73. [12] Chen Xiumin, Guo Huijun, Zhang Min, et al. Clinical observation of ear acupuncture therapy in treating AIDS-related insomnia[J]. Chinese Journal of Basic Medicine in Traditional Chinese Medicine, 2017, 23(09):1292-1294. [13] Geng Yinxun, Huo Zhiying, Ding Li. Application of traditional Chinese Bian stone technique in rehabilitation medicine[J]. Chinese Journal of Clinical Rehabilitation, 2003, 7(11):1744. [14] Yuan Baoyin, Chen Fanzhen. Health gemstone: Qufu Sibir Bian stone[J]. Toward the World, 2012(16):41. [15] Tang Yifang. Analysis of the application value of comprehensive nursing in acute upper gastrointestinal bleeding treated by gastroscopy[J]. Heilongjiang Traditional Chinese Medicine, 2018, 47(5):203-204. [16] Yuan Mei. Analysis of comprehensive nursing application in acute upper gastrointestinal bleeding treated by gastroscopy[J/CD]. Journal of Practical Clinical Nursing (Electronic Edition), 2018, 3(39):117,120. [17] Wang Huanhuan. Application analysis of comprehensive nursing in acute upper gastrointestinal bleeding treated by gastroscopy[J]. Chinese Community Doctor, 2020, 36(6):153-154.

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