Integrated Traditional Chinese and Western Medicine Nursing Care for Aortic Stenosis: A Case Report

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Abstract

This article summarizes the nursing experience of a patient with aortic stenosis, including routine nursing care, symptomatic nursing, close observation of condition changes, combined with traditional Chinese medicine nursing measures and psychological nursing care, to improve the survival rate and quality of life of patients with aortic stenosis.

Full Text

Nursing Experience of Integrated Chinese and Western Medicine Care for a Patient with Aortic Stenosis

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This article summarizes the nursing experience of a patient with aortic stenosis, encompassing routine care, symptom management, close monitoring of disease progression, and the integration of traditional Chinese medicine (TCM) nursing interventions and psychological support to improve survival rates and quality of life for patients with aortic stenosis.

Keywords: aortic stenosis; integrated Chinese and Western nursing; psychological nursing

The aortic valve is located at the junction between the left ventricle and the aorta. Aortic stenosis results from congenital malformation of the valve leaflets, degenerative changes, or rheumatic disease that causes thickening, adhesion, and narrowing of the aortic valve orifice. Long-standing disease may lead to calcification or complications such as bacterial endocarditis. While mild stenosis may be asymptomatic, moderate to severe stenosis can manifest as dyspnea, angina, and syncope.

1.1 Basic Patient Information

The patient was an 88-year-old female admitted on October 18, 2023. Her chief complaint was chest tightness and shortness of breath after exertion for over ten days. The present illness began more than ten days prior, when the patient developed palpitations, chest tightness, and limb weakness after activity without apparent precipitating factors. Symptoms improved with rest. She denied orthopnea at night, fever, cough, sputum production, chest pain, or syncopal episodes. She visited a local hospital where echocardiography indicated aortic stenosis, and intravenous therapy was administered with poor effect. She gradually developed dyspnea while supine and poor appetite. Past medical history was notable for poorly defined hypertension. She denied any history of infectious diseases, surgeries, trauma, blood transfusions, or drug or food allergies. Her vaccination history was unclear.

1.2 Physical Examination

On admission, vital signs were: temperature 36°C, pulse 44 beats/min, respiration 16 breaths/min, blood pressure 160/70 mmHg. The patient was conscious but in poor spirits, with an appearance of dyspnea. She had normal development and moderate nutrition, maintained a semi-supine position, and cooperated with the examination. No jaundice or petechiae were observed on the skin or mucous membranes, and superficial lymph nodes were non-palpable. The skull showed no deformities. There was no eyelid edema, pale conjunctiva, scleral icterus, or nasal flaring. The lips were slightly cyanotic. Jugular veins were distended. The thyroid was non-palpable, and the trachea was midline. The thorax was non-deformed with symmetric bilateral respiratory movement. Coarse breath sounds were heard bilaterally with moist rales at the lung bases and no obvious dry rales. The precordium was non-protruding, and the cardiac dullness border was slightly enlarged. No thrill was palpable. Heart rate was 46 beats/min with irregular rhythm. A grade 4/6 systolic murmur was audible at the aortic valve auscultation area. The abdomen was soft without tenderness or rebound tenderness. The liver and spleen were non-palpable, and bowel sounds were normal. Examination of the anus, rectum, and external genitalia was not performed. The spine showed no deformities. No costovertebral angle tenderness was present. Severe edema was noted in both lower extremities. Auxiliary examinations are shown in [Figure 1: see original paper] through [Figure 4: see original paper].

1.3 Diagnosis

Western Medical Diagnosis: Moderate aortic stenosis, atrial fibrillation, heart failure, NYHA Class IV.

TCM Diagnosis: Dyspnea syndrome with heart yang deficiency. The patient presented with chest tightness, palpitations, pale tongue with white coating, and a thready weak pulse. This condition falls under the category of dyspnea

syndrome, with a pattern of heart yang deficiency. The disease location is the heart. The patient constitutionally deficient yang led to heart yang debilitation, failing to warm and nourish heart spirit, resulting in loss of nourishment to the spirit. Yang qi deficiency and chest yang debilitation manifested as chest tightness, shortness of breath, and dyspnea, worsened by exertion. Insufficient yang qi failing to perform its warming function led to cold limbs, pale complexion, and weak voice. Yang deficiency causing impaired fluid transformation led to fluid accumulation under the skin, manifesting as edema. The pale tongue, white coating, and thready weak pulse are all signs of heart yang deficiency.

1.4 Treatment Interventions

On the first day of admission, the patient experienced post-exertional palpitations, chest tightness, limb weakness, dyspnea while supine, poor appetite, and severe edema of both lower extremities. She received routine TCM internal medicine nursing care, first-level nursing, low-salt low-fat diet, and cardiac monitoring. All auxiliary examinations were completed. Western medications included indobufen for antiplatelet therapy, furosemide for diuresis to reduce cardiac load, sacubitril/valsartan to improve long-term cardiac prognosis, and cyclophosphamide to improve myocardial metabolism and for symptomatic treatment. Natriuretic peptide was administered via infusion pump to improve heart failure symptoms and reduce cardiac preload and afterload.

On the second day of admission, the patient's condition stabilized. Dyspnea was reduced compared with admission, though nighttime sleep remained poor and appetite was moderate. Slight lip cyanosis persisted, but lower extremity edema had decreased. The above treatment was continued with a reduced furosemide dose, and close monitoring was maintained. At 11:27 on October 19, the laboratory notified a critical value: serum potassium 2.56 mmol/L and sodium 122 mmol/L on the biochemistry panel (including electrolytes). The on-duty physician was immediately notified. The hypokalemia was considered related to chronic poor appetite, and potassium chloride and concentrated sodium were supplemented to avoid electrolyte imbalance.

From October 20 to 23, the patient's condition remained stable. Dyspnea continued to improve, nighttime sleep was better, appetite was moderate, lip cyanosis was slight, and lower extremity edema was reduced. The natriuretic peptide infusion and cardiac monitoring were discontinued, and close observation continued.

2.1 Assessment

2.1.1 Dyspnea Assessment Dyspnea refers to a patient's subjective sensation of varying degrees and qualities of respiratory discomfort, including air hunger, breathing difficulty, labored breathing, and suffocation [1]. Using the Borg Scale, the patient scored 7 points, indicating severe dyspnea.

2.1.2 Psychological Status Psychological status was assessed using the Self-Rating Anxiety Scale (SAS) [2]. A total score below 50 indicates normal, 50-60 indicates mild anxiety, 61-70 indicates moderate anxiety, and above 70 indicates severe anxiety. The patient was clearly anxious about poor prognosis. After introducing the SAS, the patient completed the assessment with a total score of 72, indicating severe anxiety.

2.1.3 Constipation Assessment Constipation was evaluated using the Wexner Constipation Scoring System. A total score above 15 indicates constipation, with higher scores indicating more severe constipation. This patient scored 18 points.

2.1.4 Insomnia Assessment The patient experienced insomnia, primarily manifested as difficulty falling asleep, difficulty maintaining sleep, and early morning awakening. Chronic sleep disorders can seriously affect quality of life and require timely sleep assessment. The Pittsburgh Sleep Quality Index (PSQI) was used to evaluate sleep [3], with total scores ranging from 0-21, where higher scores indicate poorer sleep quality. This patient scored 17 points.

2.2 Nursing Diagnoses

The nursing diagnoses included: dyspnea related to pulmonary congestion; constipation related to inadequate intake and reduced activity; nutritional imbalance less than body requirements; lower extremity edema related to metabolic disturbance; risk of infectious endocarditis; insomnia related to dyspnea and environmental changes; and anxiety related to severe condition and activity intolerance.

2.3 Nursing Goals

Based on the nursing diagnoses, the following goals were established: Alleviate nocturnal dyspnea to enable supine positioning; Improve nutritional status and correct electrolyte imbalance; Improve constipation symptoms to achieve regular bowel movements; Facilitate faster sleep onset and improve sleep quality; Prevent cross-infection; and Relieve anxiety, maintain good psychological status, and promote active cooperation with treatment.

2.4 Nursing Interventions

2.4.1 Traditional Chinese Medicine Nursing Measures Abdominal Acupoint Massage: Acupoint massage is a common technique in TCM tuina that functions to unblock meridians, regulate qi, harmonize the middle jiao, and regulate the spleen and stomach [4]. Points selected included Zhongwan (CV12), Tianshu (ST25), and Guanyuan (CV4) to promote intestinal peristalsis and facilitate defecation. The procedure involved: overlapping both hands, using the thenar and hypothenar eminences to massage the abdomen clockwise

for 10-15 minutes; then using the thumb to press acupoints including Zhongwan, Tianshu, and Qihai (CV6), kneading each point for 3 minutes until warmth was felt at the skin. This was performed twice weekly, with four sessions constituting one treatment course. Precautions included: protecting patient privacy, maintaining warmth, avoiding drafts; trimming nails before the procedure to prevent skin injury; instructing the patient to empty the bladder before abdominal massage; applying moderate pressure and observing patient response and local skin condition, adjusting immediately if discomfort occurred.

Auricular Point Plastering: Auricular point plastering uses adhesive tape to attach vaccaria seeds to corresponding points on the auricle. Through pressing and other manipulations, it stimulates the points to produce sensations of soreness, numbness, distension, and pain, thereby unblocking meridians, harmonizing qi and blood, balancing yin and yang, and improving sleep [5]. The procedure involved: Point selection: using a probe to identify positive reaction points on the auricle. Main points: Shenmen, Subcortex, and Endocrine. Adjunct points: Lung, Spleen, and Kidney. Alcohol disinfection. Plaster application: pressing until the patient experienced a sensation of soreness and distension. This was performed twice weekly, with four sessions constituting one treatment course. Precautions included: instructing the patient on the pressing technique (2-3 times daily, 3 minutes per point); applying plaster to one auricle at a time, alternating between both ears; instructing the patient to observe the skin condition at the plaster site, keep it clean and dry, and remove immediately if redness or ulceration occurred.

Traditional Chinese Medicine Fumigation and Washing: The therapeutic principle was to activate blood, unblock collaterals, and warm yang to improve lower extremity circulation and reduce edema. The herbal composition included: Prepared Aconite 30g, Dried Ginger 30g, Achyranthes 30g, Epimedium 30g, Cinnamon Twig 20g, Safflower 20g, Sichuan Pepper 30g, Peach Kernel 20g, Honey-fried Licorice 20g, and Clematis 30g, ground into powder. The skin condition of the fumigation area was assessed, and the patient's heat sensitivity and tolerance were evaluated. The patient was assisted to a comfortable position—sitting for lower extremity fumigation or supine with knees flexed for bedridden patients. Fifty grams of herbal powder was placed in a bucket with approximately 2000 mL of hot water, mixed evenly. The patient's legs were positioned over the medicinal liquid bucket with pant legs rolled above the knees, and a bath towel was used to cover the lower extremities and bucket to steam the legs with herbal vapor. When the liquid temperature dropped below 42°C, both lower extremities could be immersed in the bucket for approximately 10 minutes. After completion, the local skin was cleaned, dried, and kept warm.

2.4.2 Conventional Nursing Measures **Absolute bed rest** with the head of bed elevated 15-30°; continuous low-flow oxygen inhalation; fluid intake restriction with accurate intake and output recording. Daily living care was strengthened with frequent rounds. Patient safety was ensured with bed rails

always in place, accompaniment during examinations, and fall-risk warning signs posted.

For constipation, the patient was encouraged to consume honey, fruits, and high-fiber vegetables. She was instructed to eat easily digestible high-quality protein such as lean meat, fish, eggs, and milk, along with various fresh vegetables and fruits to supplement vitamins and meet nutritional requirements.

Diuretics were administered as prescribed, with effects observed and close monitoring for hypokalemia and hyponatremia. Hypokalemia is the main side effect; when urine output is high, potassium-rich foods such as bananas, dark-colored vegetables, melons, red dates, and mushrooms were supplemented.

The ward was kept quiet with appropriate temperature and humidity. Diuretic administration time was 合理安排 (rationally arranged), preferably during daytime hours to promote sleep.

For emotional care, medical staff encouraged family members to communicate frequently with the patient to prevent feelings of loneliness, providing psychological support through companionship. Patients were guided to listen to soothing music, draw, or take walks to distract attention and relax. Communication between patients was encouraged, and successful cases were shared to enhance confidence in overcoming the disease.

3. Nursing Evaluation

The patient's dyspnea improved, with Borg Scale score decreasing from 7 to 2 (mild). Lower extremity edema resolved, electrolyte imbalance was corrected, and nutritional balance was achieved. Constipation symptoms improved, with Wexner Constipation Score decreasing from 18 to 10. Sleep quality significantly improved, with PSQI score of 8. Anxiety improved, with SAS score of 60, indicating good psychological status and active cooperation with treatment.

Asymptomatic aortic stenosis carries a relatively good prognosis, but most patients experience progressive stenosis. Once symptoms appear and the condition deteriorates, serious complications such as heart failure, infectious endocarditis, and sudden death may occur, greatly endangering life. Clinical practice demonstrates that combining TCM nursing techniques with conventional nursing can effectively improve clinical symptoms, enhance quality of life, and increase patient satisfaction. In summary, integrated Chinese and Western nursing organically combines TCM pattern-based nursing with holistic Western nursing, leveraging complementary advantages. Developing integrated intervention protocols based on clinical advantages and characteristic techniques demonstrates positive significance in promoting patient recovery and improving quality of life, while enhancing nurses' professional value. This approach merits clinical promotion.

Author Declaration: No conflict of interest exists in this article.

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Note: Figure translations are in progress. See original paper for figures.