

## A Client with Alcoholic Cirrhosis



Richard Wright is a 48-year-old divorced father of two teenagers. Mr. Wright has been admitted to the community hospital with ascites and malnutrition. He has had three previous hospital stays for cirrhosis, the most recent 6 months ago.

## ASSESSMENT

Mr. Wright is lethargic but responds appropriately to verbal stimuli. He complains of “spitting up blood the past week or so” and says, “I’m just not hungry.” He has lost 20 lb (9 kg) since his previous admission. He is jaundiced and has petechiae and ecchymoses on his arms and legs. Liz Mowdi, Mr. Wright’s nurse, notes pitting pretibial edema. Abdominal assessment reveals a tight, protuberant abdomen with caput medusae. The liver margin is not palpable; the spleen is enlarged. Vital signs are T 100°F (37.7°C), P 110, R 24, and BP 110/70.

Abnormal laboratory results include WBC 3700/mm<sup>3</sup> (normal 4300 to 10,800/mm<sup>3</sup>); RBC 4.0 million/mm<sup>3</sup> (normal 4.6 to 5.9 million/mm<sup>3</sup>); platelets 75,000/mm<sup>3</sup> (normal 150,000 to 350,000/mm<sup>3</sup>); serum ammonia 105 μm/dL (normal 35 to 65 μm/dL); total bilirubin 4.9 μ g/dL (normal 0.1 to 1.0 μg/dL); and serum sodium 150 mEq/L (normal 135 to 145 mEq/L). Potassium, hemoglobin, hematocrit, total protein, and albumin levels are markedly decreased. Hepatic enzymes are elevated. Blood urea nitrogen and creatinine levels are marginally elevated. Oxygen saturation (O<sub>2</sub> sat) is 88% (normal range: 96% to 100%) per pulse oximetry.

Endoscopy shows bleeding from gastric ulcer, and the diagnosis of alcoholic cirrhosis with gastritis is made. Mr. Wright is started on Aldactone, 25 mg PO q8h; Riopan, 30 mL 2 hr p.c. and h.s.; lactulose, 30 mL q h until onset of diarrhea, then 15 mL t.i.d.; and low-protein, 800 mg sodium diet; fluid restriction of 1500 mL/day.

## DIAGNOSES

Ms. Mowdi makes the following nursing diagnoses.

- *Impaired gas exchange*, related to pressure of ascites fluid on the diaphragm as manifested by tachypnea and decreased oxygen saturation
- *Excess fluid volume* related to electrolyte imbalance and hypoalbuminemia as manifested by ascites and peripheral edema
- *Imbalanced nutrition: less than body requirements*, related to anorexia and possible alcohol abuse manifested by weight loss and low serum protein levels
- *Disturbed thought processes*, related to effects of high ammonia levels as manifested by lethargy
- *Ineffective protection*, related to impaired platelet formation and malnutrition

## EXPECTED OUTCOMES

The expected outcomes established in the plan of care are as follows:

- Respiratory rate and O<sub>2</sub> sats will be within normal limits.
- Abdominal girth will decrease by 1 to 2 cm per day; peripheral edema will decrease.

- Will gain 1 lb (0.45 kg) per week without evidence of increased fluid retention. Serum albumin levels will return to normal range.
- Will be alert and oriented; serum ammonia levels are within normal range.
- Will demonstrate no further evidence of active bleeding.
- Will verbalize willingness to join a community support group.

## PLANNING AND IMPLEMENTATION

Ms. Mowdi plans the following nursing interventions for Mr. Wright.

- Weigh daily.
- Provide high-calorie, low-salt, low-protein diet with between-meal snacks.
- Maintain stool chart.
- Assign same nurses to care as much as possible to facilitate evaluation of mental status. Promptly report changes in status or laboratory values.
- Measure abdominal girth every 8 hr, marking level of measurement.
- Institute bleeding precautions.
- Elevate head of bed; assist to chair with legs elevated t.i.d. as tolerated.
- Include significant others in care and teaching; refer to community agencies for discharge follow-up.

## EVALUATION

A week after admission, Mr. Wright’s ascites has decreased and no further active bleeding is noted. His serum protein levels have increased, and his laboratory values are improving. No further bruising is noted during hospitalization. Although he shows a 5 lb weight loss as excess water is eliminated, he is consuming 100% of his diet. His serum ammonia levels have returned to normal. On discharge, O<sub>2</sub> sat is 96%; respirations are 18. Lactulose will be continued on discharge.

Ms. Mowdi provides both written and verbal information about the medication and cirrhosis, including measures to prevent complications. Mr. Wright and his children express interest in Alcoholics Anonymous and Al Anon and are referred to those agencies. Prior to discharge, follow-up appointments are made with a psychiatric social worker and a primary caregiver.

## Critical Thinking in the Nursing Process

1. Describe the relationship between portal hypertension, liver dysfunction, and ascites.
2. Outline a 1-day menu for a low-protein, low-sodium high-calorie diet.
3. What is the pathophysiologic basis for hepatic encephalopathy? What are the nursing responsibilities related to lactulose and neomycin?
4. Design a nursing care plan for Mr. Wright for the diagnosis *Ineffective coping*.

See Evaluating Your Response in Appendix C.