

Ascites - Diagnosis and Nursing Management

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Abstract: Ascites is the most common complication of liver cirrhosis. Ascites is defined as the accumulation of fluid in the peritoneal cavity. 50% of the patient with cirrhosis develops ascites. The mortality rate increased to 15 percent. The ascites can lead to further complication like bacterial peritonitis, hyponatremia, refractory ascites and hepatorenal syndrome. Today the role of nurse has expanded. Nurse plays a major role in diagnosis and management of ascites.

Keywords: Ascites, Nursing care of patient with ascites

1. Introduction

Ascites is a distressing symptom. Ascites can be problematic and cause discomfort and distress to the patient and families. Almost 60% of the cases with compensated liver diseases develop ascites within 10 years. The prognosis of ascites are poor which results in high mortality. Mortality is 40 percent within a year and it is 50 percent in two years. If it is the case of refractory ascites, the average survival rate is six months. Ascites can cause dyspnea, pain, nausea, immobility and alteration in body image and also disturb the quality of life. The complication associated with ascites is less if it is not associated with infection and hepatorenal syndrome. The symptoms of ascites appear slowly depend on the cause of ascites. The patient may have no symptom if there is minimal amount of fluid. Clinically ascites is classified as mild moderate and severe. Mild is diagnosed with the help of ultrasound. Moderate is having minor symmetrical distension of abdomen whereas in severe ascites patient is have full abdominal distension. It requires careful management and empathetic care. Nurses are the one who plays a vital role in diagnosis as well as in the management of ascites.¹

2. Diagnostic Evaluation of Patient with Ascites

2.1 History taking

Assess the history of alcohol intake, smoking, any blood transfusion, hepatitis or jaundice in the past and history of liver diseases previously. Tuberculosis especially extra abdominal tuberculosis is one of the cause of ascites, so history of fever need to be assessed.²

2.2 Physical examination

Physical examination provides important clue to diagnose the ascites although small or minimal amount of ascites cannot be identified with physical examination.² There are various methods of assessment of ascites. First one is assessment of dullness. In this method patient will lie in supine position. Nurse has to perform the percussion of the abdomen from umbilicus to periphery in all directions. During percussion if tympanic sound heard, it means there is air filled bowel and if dullness is present then it indicates collection of fluid. Another method is assessment for fluid

waves. Patient will lie in the left lateral position. Use free hand, firmly tap left flank of the patient. If ascites is present, the tap will transmit an impulse through the fluid, which feel with palm on his right flank.³ Next method is bulging flanks. This method is same like the others methods, patient will lie in the supine position, and the nurse has to just visualize whether the flanks are pushed outward or not.⁴

2.3 Laboratory investigation

It include liver function test, especially albumin level and total protein will be low. Others blood test may be renal function test, serum electrolytes level, lactate dehydrogenase⁵. Radiological Investigations includes ultrasonography or CT scan. Ultrasound is prescribed for the patient when there is no clue of ascites in physical examination. Ultrasound helps to diagnose the smaller amount of ascitic fluid.⁶

3. Nursing Management of Patient with Ascites

3.1 Identify the underlying cause

First and foremost, important thing in the management of ascites is to identify the underlying cause of ascites. For this, assess the history of underlying liver diseases, heart diseases, malignancy of breast and GI tract also the history of extra abdominal tuberculosis which is one of the causes of ascites².

3.2 Assessment of abdominal girth

Assessment of abdominal girth is an vital parameter to assess the progression of abdominal distension. Make sure the position of measuring tape should be in same position every time. While measuring abdominal girth, ask the patient to relax and breath normally and not to contract the abdominal muscle. Waist circumference measurement guidelines- Health care professional.

3.3 Measurement of weight

Measure the weight of the patient daily and compare the findings with previous findings. If patient is not able to move, provide position to the patient 2nd hourly.

3.4 Assessment of sign and symptom

Further, assessment of the sign and symptom, like shortness of breath, abdominal discomfort, abdominal distension, loss of appetite and hernia.

3.4 Bed rest

Provide bed rest to the patient. The study shows that bed rest is shown to inhibit the RAAS system and SNS that is activated in upright position in cirrhotic patients that impairs renal blood perfusion and causes sodium retention. Bed rest reduces the plasma aldosterone level and improves the response to diuretic therapy in cirrhotic patients⁷.

3.5 Fluid management

The patient with ascites along with cirrhosis presents with hyponatremia and hypovolemia. If the sodium level is less than 130 meq/ liter, water restriction to 1.5 liter per day is recommended.

3.6 Diet management

Patient with ascites are advised to take low sodium diet. Maintaining nutritional pattern in patient with ascites is vital. Measure the height and weight along with BMI is one of the methods to assess the nutritional status of the patient with ascites. But this method will not provide the actual weight of the patient because of ascites. The other method to assess the nutritional status is by using subjective global assessment (SGA) which helps to determine the degree of malnutrition based on changes in weight and dietary intake. Intake of 35 to 45 kilo calories energy per day and 1.2-1.5g/kg/day of protein is recommended for the patient with ascites along with chronic liver disease. 40 kilo calories per day is recommended for the patient who are severely malnourished and is having ascites with cirrhosis. Nutritional management of patient with acute or chronic liver diseases

3.7 Maintains skin integrity

Patient with Chronic liver diseases develop ascites that make the skin dry, itchy and flanks. Assess the pressure points regularly and provide gentle massage over the bony prominences. Instruct the patient to elevate the lower limb.

4. Conclusion

The patient with ascites requires strict medical and nursing management to prevent complication like renal failure, fluid and electrolyte imbalance and infections.

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