

Case Report on Hemolytic Uremic Syndrome

ABSTRACT:-

Introduction

¹Hemolytic uremic syndrome (HUS) is a kidney disease characterized by damaged and inflamed small blood vessels. As a result of the damage, clots in the vessels may form. Clots impede the filtration function of the kidneys, causing renal failure, which can be deadly. Haemolytic–The uremic syndrome is defined .low platelets, acute renal failure, and low red blood cells (HUS). 1 Bloody diarrhea, fever, vomiting, and weakness are common early symptoms. 2 As the diarrhea progresses, kidney issues and low platelets become more prevalent.3 Adults may have worse outcomes than children, despite the fact that children are more typically affected. Neurologic complications are possible.O157:H7.4 is a E. coli is a type of bacteria. Salmonella, Shigella, and S. pneumoniae and certain medications are among the other causes. The bacteria's synthesis of Shiga toxin is usually the underlying mechanism. The key symptoms of hemolytic anemia and thrombocytopenia in this case of HUS that we will present were hemolytic anemia and thrombocytopenia, with renal involvement being less relevant. **Clinical Finding:** Hemolytic anemia, nephropathy and thrombocytopenia ,pallor ,jaundice ,edema ,hypertension. **Diagnostic Evaluation:** HB-5.7%,total protein-7.4 ,total Alp-123 , total platlet count-16000lac,total bilirubin-3.2 mg/dl.WBC 7000, CRP 5.58MG/L,Sodium level 136mg/dl ,potassium level 3.92mg/dl,**Therapeutic Intervention** – Tab Amlodepin 10 mg BD , Tab Prednisolone 10mg TDS , Tab Envas 2.5mg OD , Inj.Metropenum 340mg BD ,Inj. Pantop 20mg OD.**Outcome**-The medication has started for thrombocytopenia, the patient is on dialysis and If is given to patient for movement of body because of patient is obese. **Conclusion** -The patient is dmitted in AVBRH under the Dialysis department with continuous medical , nursing management and currently the patient's condition is stable and under observation.

Keywords-Hemolytic uremic syndrome ,thrombocytopenia ,abdomen, renal or kidney. Minimal renal involvement,Escherichia coli O26,HUS differential diagnosis.

Introduction: Bloody diarrhoea, fever, vomiting, and weakness are common early symptoms.(1) As the diarrhoea progresses, kidney issues and low platelets become more prevalent. Adults may have worse outcomes than children, despite the fact that children are more typically affected.(2) Neurologic complications are possible.O157:H7.4 is a E. coli is a type of bacteria. (3)Salmonella, Shigella, and S. pneumoniae and certain medications are among the other causes. The bacteria's synthesis of Shiga toxin is usually the underlying mechanism.(4)

It manifests itself in a distinctive manner. Thrombotic microangiopathy is a condition that results in a lot of inflammation and a lot of blood clots in the small blood vessels. (5) Cause: HUS is caused by eating bacteria that generate Shiga toxin, such as enterohemorrhagic Escherichia coli (EHEC), the most frequent of which being E. coli O157:H7. (6) STEC- a frequent strain serotype that is not typical: Complete text of the article: Atypical Hemolytic uremic syndrome (HUS) is a kind of hemolytic uremic disease that affects the kidneys. (7)

Symptoms and Indications: The initial signs of illness might emerge anywhere from 1 to 10 days after eating infected food, although they usually appear 3 to 4 days after that. (8) Bloody diarrhoea, stomach pains, a mild fever, or dehydration from vomiting are some of the early signs and symptoms. HUS generally shows 5–10 days after the first symptoms, although it might take up to a month. (9)

The diarrhoea is gradually improving reduced lethargy Reduced urine output, blood in the urine, and renal failure are all indications and markers of kidney failure. For example, reduced platelets (which are required for blood coagulation) and red blood cell disintegration (microangiopathic hemolytic anemia). Jaundice (a yellow tint to the complexion) causes seizures, elevated blood pressure, and skin bleeding. (10)

There are noticeable neurologic abnormalities in certain situations. Present historical events: A 6-year-old female patient was hospitalised to AVBRH in February 2021 with pallor, edoema, hypertension, nausea, and vomiting, and her relative stated that she was unable to walk due to obesity. Hemolytic uremic syndrome was the subject of some inquiry.

Family history: There are four member in the family. My patient was diagnosed to hemolytic uremic syndrome. all other member were not having complaint with health except for my patient who was admitted in the hospital.

Past history: There is no significant past history of the patient.

Clinical finding: Hemolytic anemia, nephropathy and thrombocytopenia ,pallor , ,edema ,hypertension.

Etiology:

The most common cause of hemolytic uremic syndrome in children is an infection of the digestive system with Escherichia coli (E. coli). The gastrointestinal tract, often known as the GI tract, is a series of tubes that runs through the digestive system. consists of hollow organs connected in a long, twisting tube from the mouth to the anus—along with other organs that help in food digestion and absorption. E. coli strains or types that are typically harmless are common in the intestines and play an important role in digesting. If a child is infected, however, the germs will become lodged in the digestive tract. Toxins are produced, which can enter the circulation. Toxins pass through the circulation and have the potential to kill red blood cells. E.coli O157:H7 can be found in raw, unpasteurized ground beef, raw, unwashed

milk, and infected raw fruits and vegetables. polluted juice contaminated lakes or swimming pools Atypical hemolytic uremic syphilis

Physical Examination: There is abdominal pain and edema in my patient ,The patient had un-cordinated movement .

Diagnostic assessment : HB-5.7%,total protein-7.4 ,total Alp-123 , total platlet count-16000lac,total bilirubin-3.2 mg/dl.

Therapeutic Intervention – Tab Amlodepin 10 mg BD , Tab Prednisolone 10mg TDS , Tab Envas 2.5mg OD , Inj.Metropenum 340mg BD ,Inj. Pantop 20mg OD.

Outcome-The medication has started for thrombocytopenia, the patient is on dialysis and physiotherapy is given to patient for movement of body because of patient is obese.

Discussion

On February 20,2021, a 6-year-old girl patient was brought to the AVBRH dialysis centre with complaints of pallor, jaundice, edoema, and hypertension. fever, vomiting, and weakness. 2 Kidney problems may develop when the diarrhoeadevelops.is: Despite the fact that children are more commonly afflicted, adults may have poorer results than children. Two possible consequences include neurological problems and cardiac failure. (11)The majority of cases are caused by the infectious diarrhoea-causing E. coli strain O157:H7.4. S. pneumoniae, Shigella, Salmonella, and certain medications are among the other causes.(12) When a Shiga toxin-producing bacteria is found, it's called a Shiga toxin-producing bacterium.A genetic mutation causes atypicalhemolytic uremic syndrome (aHUS), which can manifest itself in many ways. 5 A disease known as thrombotic microangiopathy occurs when tiny blood arteries become irritated and blocked with blood clots. It might take anywhere from one to 10 days, although it generally happens within three to four days. Dehydration and reduced urine output owing to diarrhoea (which is s) are early signs.(13)

Conclusion -The patient is admitted in AVBRH under the Dialysis department with continuous medical , nursing management and currently the patient's condition is stable and under observation.

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