Case Report

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Case Report on Kawasaki Disease

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Abstract

Kawasaki disease (KD), also known as Kawasaki syndrome, is an acute febrile illness of unknown cause that primarily affects children younger than 5 years of age. The symptoms of Kawasaki disease are similar to those of an infection, so bacteria or a virus may be responsible. But so far a bacterial or viral cause hasn't been identified. As Kawasaki disease isn't contagious, it can't be passed from one person to another. ***Aim:*** 1. To know general idea about the condition of the disease. ***Objective: 1.*** Exploring knowledge of pharmacology, management of medicine and nursing. ***Result:*** Patient was discharge and he has to come for follow up after 15 days. Conclusion: Kawasaki disease can affect children and teenagers of all racial and ethnic backgrounds. In most cases, children will recover within a few days of treatment without any serious problems. Recurrences are uncommon. If left untreated, Kawasaki disease can lead to serious heart disease. Kawasaki disease has a positive outcome when diagnosed and treated early.

Keywords: Kawasaki disease; Immunoglobulin therapy; Febrile illness.

INTRODUCTION

Because Kawasaki disease also known as Kawasaki syndrome, is an acute febrile illness of unknown cause that primarily affects children younger than 5 years of age. The disease was first described in Japan by Tomisaku Kawasaki in 1967, and the first cases outside of Japan were reported in Hawaii in 1976. The symptoms of Kawasaki disease are similar to those of an infection, so bacteria or a virus may be responsible. But so far a bacterial or viral cause hasn't been identified. As Kawasaki disease isn't contagious, it can't be passed from one person to another. The Kawasaki Disease Foundation estimates that Kawasaki disease affects more than 4,200 children in the United States each year. Kawasaki disease is also more common in boys than in girls and in children of Asian and Pacific Island descent. However, Kawasaki disease can affect children and teenagers of all racial and ethnic backgrounds. In most cases, children will recover within a few days of treatment without any serious problems. Recurrences are uncommon. If left untreated, Kawasaki disease can lead to serious heart disease. Read on to learn more about Kawasaki disease and how to treat this condition. Kawasaki disease occurs in stages with tell tale symptoms and signs. The condition tends to appear during late winter and spring. In some Asian countries, cases of Kawasaki disease peak during the middle of summer Kawasaki disease is a disease that causes inflammation in your body, mainly the blood vessels and lymph nodes. It mainly affects children under the age of 5, but anyone can contract Kawasaki Disease. The symptoms are similar to a fever, but they show up in two distinct stages. A persistent, high fever that lasts for more than five

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days, a strawberry tongue, and swollen hands and feet are a few of the symptoms of the early stage. In the later stage, symptoms may include joint paint, skin peeling, and abdominal painawasaki disease causes swelling (inflammation) in the walls of medium-sized arteries throughout the body. It primarily affects children. The inflammation tends to affect the coronary arteries, which supply blood to the heart muscle.[4]

Incidence: Kawasaki disease is believed to be the commonest vasculitic disorder of children. Incidence rates as high as 60-150 per 100,000 children below 5 years of age have been reported from several countries. Boys are slightly more likely than girls are to develop Kawasaki disease.

PATIENT INFORMATION

Patient history

A 10 year old male child brought to hospital with fever ad rash since 4 days. Patient is apparently all right 4 days back then develop rash sudden onset started over the hand and spread to the entire body. Initially popular rashes with itching for 1 day then his itching subsided. Rash is associated with the high grade fever. A detailed clinical evaluation is made based on patient ultra sonography scan imaging of abdomen, ultra sonography of abdomen and pelvis, 2D echocardiogram, ECG, blood and urine investigation are used as diagnostic technique. There was no significant background history. There was no other family history. After all examinations such as complete blood count, kidney function test, USG abdomen and pelvis etc was done when patient admitted to the hospital.

Causes

The exact cause of Kawasaki disease is still unknown. Researchers speculate that a mixture of genetics and environmental factors can cause Kawasaki disease. This may be due to the fact that Kawasaki disease occurs during specific seasons. A number of theories link the disease to bacteria, viruses or other environmental factors, but none has been proved. Certain genes may make your child more likely to get Kawasaki disease.

Clinical Finding

Majority of the affected children present witha fever that is often is higher than 102.2 F (39 C) and lasts more than three days. Extremely red eyes without a thick discharge. A rash on the main part of the body and in the genital area. Red, dry, cracked lips and an extremely red, swollen tongue. Swollen, red skin on the palms of the hands and the soles of the feet. In my patient fever since 4 days and erythromatous rash present all over the body with itching, red skin on palms and swollen tongue since 3-4 days.

Investigations:

Diagnostic investigation has been done which are Ultrasonography of abdomen and pelvis done and shows borderline spleenomegaly. 2D Echocardiogram was done and it shows inferior vena cava 8 mm collapsing with respiration. ECG was normal. Blood group was B positive, Hemoglobin was 10.5%, platelets 1.2 lacks.cu.mm, HCT 34 %, MCV 74 cub micron, MCH 25pico-gm, MCHC 33.8% and ESR was 60. In KFT Sr. Bilirubin 0.8, conjugated bilirubin 0.3, unconjugated bilirubin 0.5, SGPT 74, SGOT 38, total protein 6.4, albumin 3.4, globulin 3.0, Sr. urea 24mg/dl, Sr. creatinin 0.4mg/dl, Sr. Sodium 132mmol/L, Sr. potassium 3.6mmol/L, International normalized ratio 1.1 and prothrombin time was 13.7 seconds.

TREATMENT

Medical Management

Treatment of Kawasaki Disease was is most effective with early diagnosis of the condition. There are specific recovery approaches, as well. Intravenous immune globulin therapy has been started. Along with Inj. Ceftraxone, Inj. Pantaprasole, Tab. Doxy, Tab. Avil, syrup Gelusil, Syrup Becasule.[2]

Nursing Management

Nursing Assessment

Assessment should include detail history of illness, recent and past illness or injury. And drug therapy or allergy or exposure to toxic substance. Through physical examination should be done especially hydration status, cardio respiratory monitoring, daily weight recording and strict monitoring of intake and output. Necessary laboratory investigation should be arranged to assess the underlying problems.[7]

Nursing Diagnosis

The important nursing diagnosis are:

- Risk for fluid and electrolytes balance related to impaired renal functions.
- Risk for infection related to alteration of host

defence.

- Activity intolerance related to acute illness.
- Altered though process related to CNS problems.
- Altered nutrition less than body requirement related to GI disturbance.
- Fear and anxiety related to life threatening illness.
- Knowledge deficit related to management of acute renal failure and its consequences.[7]

Nursing Interventions

- Marinating fluid and electrolytes balance with prescribed IV infusion and maintain intake and output chart. Monitoring serum electrolytes and features of heart failure are very significant.
- Administering prescribed medications with necessary precaution.
- Provide diet with high carbohydrate food, low potassium and low sodium in frequent small amount feeding.
- Provide rest, comfort, change of position ,skin care, care of urine drainage(condom drainage may be given) and other hygienic care.
- Preventing infection by aseptic precautions, avoiding urinary catheterization and teaching the parents about infection control measurement. Prophyltic antibiotics are not recommended. Presence of infection to be dected early by continuous monitoring and should be treated accordingly.
- Prevent injury during convulsions and assessing neurological status.
- Providing emotional support to the parents , child and family members.
- Teaching about care of the child after discharge at home especially about diet, prevention of infection and follow up.[5]

Parental support and guidance

- Nurses should continually guide, support and help parents to adjust to this disease condition.
- Parents should encouraged to express their feeling, fear, grief and concerns.
- Provide emotional support to the parents continuously.[6]

Side effects of Intravenous Immunoglobulin Therapy:

- The majority people experience such as flushing, headache, malaise, fever, chills, fatigue and lethargy, are transient and mild.
- Some rare side effects, including renal impairment, thrombosis, arrhythmia, aseptic meningitis, haemolytic anaemia, and transfusion related acute lung injury (TRALI), are serious. [3]

Continuing Care: Patient reference can help the patient handle the transition from hospital to home. The nurse at home assesses the success of the patient at home and the way the family progresses and patients cope with intravenous immunoglobulin therapy. The nurse reinforces the concerns that the patient or the family may not have asked Before the patient is back at home and is trying to Establish new rules trends in study.

DISCUSSION

Kawasaki disease was first reported in 1967 by T. Kawasaki, a Japanese pediatrician.[1] The first Korean patient was reported in 1973.[2] Since then, the incidence of this disease has increased continuously. Kawasaki disease is characterized with acute systemic vasculitis that occurs predominantly in children between 6 months to 5 years of age. Although the clinical symptoms of KD are well characterized, the causes of this disease are not yet known. For this reason, KD is usually diagnosed by clinical symptoms, such as a fever for 5 days or more, bilateral nonpurulent conjunctiva congestion, changes of the lips and oral mucosa, polymorphous exanthema along the trunk, changes of the peripheral extremities and subsequent desquamation of finger tips, and no purulent cervical lymphadenopathy over 1.5 cm in size (Table 1). Other than these criteria, erythematic on Bacille Calmette-Guérin (BCG) vaccination sites is also thought to be an important finding in children younger than the age of 2 years.[3] This is an especially important finding for Kawasaki Disease patients in Korea, since BCG vaccination is included in a national immunization program (NIP) during the neonatal period.

Informed Consent

The patients and their family have been given details before taking this case and the patient and their families have received informed consent.

CONCLUSION

Though almost 50 years has passed since KD was first recognized, many topics remain to be clarified, including etiology, immunopathogenesis, genetics,

development of coronary artery aneurysms, treatment of intravenous immunoglobulin therapy resistant patients, and long-term cardiac spell. In the future, overcoming Kawasaki Disease will reflect the efforts of many researchers in various fields.

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