A Case of Idiopathic Thrombocytopenic Purpura

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Abstract
Introduction : When the immune system incorrectly attacks platelets, idiopathic thrombocytopenic purpura (ITP) might develop. It can also develop after viral infection in youngsters; it may be persistent in adulthood. Platelets are blood cells that assist in the clotting process. Easy bruising, bleeding gums, and internal bleeding can all be symptoms of a low platelet count.
Main symptoms and clinical findings: A female 35 years old was admitted to AVBRH with chief complaints of prolonged heavy bleeding, Reddish-purple patches on the lower legs, some as small as a pinhead, weakness, lethargy, itching fever and abdominal pain.
Main diagnosis, therapeutic interventions, and outcomes: A 35 years old femalewas admitted to Tertiary Care hospital with chief complaints of prolonged heavy bleeding, Reddish-purple patches on the lower legs, some as small as a pinhead, weakness, lethargy and fever, and abdominal pain. She came for treatment, and her treatment started at the time of injectable admission pan of 40 mg, antiemetics, I. V fluid DNS, D5 began to. Advised to check vital signs and maintain records and observation of spots on the skin.Blood test; Hb 10.6% , MCV 62.5%,MCH 19.6%Total RBC 5.38,Total WBC 5700,Total platelet count 40,000Monocytes 05,Granulocytes 80,Lymphocytes 14.Inj. ceftriaxone 500 mg BD, inj. Pan 40 mg, BD, inj. Romiplostim started.As far as the patient treatment is ongoing and the patient prognosis is better
Conclusion : Idiopathic thrombocytopenic purpura is a rare condition primarily in children found in adults age and uncommon in youngsters. Patient with HIV infection, hepatitis and viral infection has more likely to get this illness. In this case, the patient is stable and got the proper treatment overall, and his condition is better than at the time of admission.

Keywords: - idiopathic thrombocytopenic purpura, platelet, immune system.

Introduction:

Idiopathic thrombocytopenic purpura (ITP) is a hematologic condition marked by isolated thrombocytopenia with no apparent cause. Immune thrombocytopenia, reduced bone marrow output, and increased splenic sequestration are the most common reasons for rapid platelet consumption. (1) There are no signs or symptoms of immune thrombocytopenia. When they happen, they can involve the following: Bruising that is too easy or too severe, A rash that appears as pinpoint-sized reddish-purple patches (petechiae) on the skin, commonly on the lower legs. Gum or nose bleeding Urine or faces containing menstrual blood flow is very heavy. (2) The immune system is triggered in ITP, which causes it to target your platelets. Antibody generation against platelets is usually the cause of this. A type of white blood cell known as T-cells will target platelets directly in a tiny proportion of cases. Any of the following could cause an immune system malfunction: Pharmaceuticals (including over-the-counter medications) might produce platelet cross-reactions, resulting in an allergic reaction. Viruses that cause chickenpox, hepatitis C, and AIDS can cause antibodies to cross-react with platelets. Rheumatoid arthritis and lupus are two immune illnesses. Low-grade lymphomas and leukemias can produce abnormal antibodies against platelet proteins. Immune thrombocytopenic purpura has an unknown origin in some instances. (3). Children are more likely than adults to experience spontaneous remission, and cerebral haemorrhage is infrequent. Females predominate only among middle-aged adults, and the prevalence rises with age. Adults with chronic diseases may have a better outlook than previously thought; however, only a tiny percentage of them recover on their own. (4) Adults are typically prescribed prednisone or dexamethasone as a steroid medication. Splenectomy (removal of the spleen) may be recommended in specific instances. In roughly half of the people, this raises their platelet count. Other medication

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treatments, on the other hand, are frequently prescribed. Other treatments may be considered if prednisone does not improve the condition: Gamma globulin infusions at high doses (an immune factor), Immune-suppressing medications for persons with specific blood types, anti-Rd. Therapy is available. Drugs that increase platelet production by stimulating the bone marrow Aspirin, ibuprofen, and warfarin should not be used by people with ITP because they interfere with platelet function and blood clotting, which can cause bleeding. (5)

Patient Information:
A 35 years old woman was admitted to Tertiary Care Hospital on with a chief complaint of prolonged heavy bleeding, bruising gums, abdominal pain, and red and purple pinpoint spots on the skin with itching.

Past medical history
The patient didn't have any relevant past medical history.

Family history
A 35 years lady belongs to a nuclear family, and her family members are healthy except for her.

Relevant past intervention and outcomes
Not reported

Clinical findings

Physical examination
General physical examination and neurological examination were done. On general physical examination, she had a red and purple spot on her skin with itching and brushing gums and looked pale.

Timeline
Idiopathic thrombocytopenic purpura is commonly seen in the child, but in this case, it affects 35 years lady, and her treatment is ongoing as per her body's response to treatment.

Historical and current information from the episode of care is organized as a timeline.
When the patient was admitted, all necessary investigation was done. Her CBC report reveals that her platelet counts us low, and as per observation and signs and symptoms, she was diagnosed with idiopathic thrombocytopenic purpura. Now she is on dexamethasone, gamma globulin infusion, and immune-suppressing medication.

Diagnostic assessment

Diagnostic testing
Physical examination, blood count, radiological studies like MRI and CT scan, microbiological studies, and biochemical studies were done. A neurological exam was also done. His NS1 and IGg antibodies tests are also sent to the laboratory with the genetic research. Anti-platelet antibody test." Medication review. Aspiration of the bone marrow: This test looks at platelet production and can rule out any aberrant cells produced by the bone marrow that could affect platelet levels.

Diagnostic challenge
No diagnostic challenges was reported at the time of testing, such as financial and cultural.

Prognosis
Currently, the patient is recovering from her situation and showing a positive response; her prognosis is good.

Therapeutic interventions
She came for treatment, and her treatment started. At the time of admission injectable pantoprazole of 40 mg, antiemetics, I. V fluid DNS, D5 started. Advised to check vital signs and maintain records and observation of spots on the skin. Blood test; Hb 10.6% , MCV 62.5%,MCH 19.6%Total RBC 5.38,Total WBC 5700,Total platelet count 2,00000Monocytes 05,Granulocytes 80,Lymphocytes 14.Inj ceftriaxone 500 mg BD, inj. Pan 40 mg , BD, inj. Romiplostim started. Now she is on dexamethasone, gamma globulin infusion, immune-suppressing medication, and she was advised a healthy diet.

Change in therapeutic interventions
Order to stop in. Romiplostim.

Follow-up and outcomes
Follow-up medication as prescribed by a doctor\. Advised proper diet, exercises , Maintain personal hygiene. Avoid any medication without doctors Permission, Take 6 to 8 hours sleep daily, Avoid spicy food and take a light diet.

Intervention adherence to tolerability
Intervention well adhered to and tolerated by patient

Adverse and unanticipated events
No adverse events were noted

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Discussion:

A 35 years woman was admitted to tertiary care hospital with chief and abdominal pains, heavy vaginal bleeding, bruising gums, red and purple spots on the skin with itching and discomfort.ITP (immune thrombocytopenic purpura) is an immunological-mediated disorder affecting adults and children. It's marked by a drop in platelet count that might be temporary or long-term. We present a case of ITP that was discovered due to oral hemorrhage signs. The patient was a 35-year-old woman who had no prior medical history. She had a gingival hemorrhage and hemorrhagic bullae on the buccal mucosa. It was tough to stop gingival bleeding. (6) Steroids and intravenous immune globulin were used to treat the patient's thrombocytopenia, and no cerebrovascular problems occurred. ITP-induced platelet microparticles may have contributed to our patient's stroke, according to our findings. In the case of idiopathic thrombocytopenic purpura, it's difficult to know how to treat acute ischemic stroke(7) . ITP can be caused by both acquired and hereditary causes. Platelet destruction and platelet inhibition via the generation of particular autoantibodies are thought to be involved in the pathophysiology. The example we reported is one of roughly 22 million cases diagnosed in the United States annually. Even though ITP is a somewhat common condition, there is still a lot to learn about its diagnosis and treatment. (8)

ITP is diagnosed mainly by ruling out other disorders that appear with a low platelet count. A history, physical examination, complete blood count, and evaluation of a peripheral smear are the best ways to accomplish this. Epistaxis, melena, and hematuria are common symptoms in patients with ITP. To rule out drug-induced thrombocytopenia, a thorough medication history should be obtained. Signs of a hemostatic condition are frequently discovered after a thorough physical examination. Children experience spontaneous remission more commonly than adults, and cerebral hemorrhage is infrequent. The prevalence rises with age, with women outnumbering men only in middle-aged people. Adults with chronic disease may have a better prognosis than previously thought; however, only a tiny percentage of them recover on their own(9). Twenty-five cases with Hodgkin's disease and idiopathic thrombocytopenic purpura (ITP) are studied from the literature, as well as two additional patients. ITP developed in 22 patients after their Hodgkin's illness had been treated. Hodgkin's disease was active in nine of these patients at the time of the ITP. In four cases, ITP was diagnosed simultaneously as Hodgkin's disease. ITP was one year ahead of Hodgkin's disease in one patient. With prednisone, seven of the 26 patients could attain complete ITP remission. (10)A person with multiple medical problems may present with a muddled clinical picture. ITP is a devastating autoimmune illness for which there is little epidemiological data on its prevalence, risk factors, or comorbidities. We conducted a 14-year population-based case-control study using the United Kingdom general practice research database to investigate medical illnesses that are more likely to co-occur with ITP and their material connection with ITP. In practice, age, gender, and follow-up length, ITP and non-ITP patients were matched. Patients' medical information was used to depict potential comorbidities at the Med DRA international classification's preferred word level. ITP is linked to a variety of medical disorders, including death (O R = 6.0; 95 per cent CI [4.47–806.0]) and clinical signs and symptoms (11). Few of the related studies were reviewed (12-15).

Conclusion:

A 35 years woman was admitted to AVBRH hospital on date 7/03/2022 with a chief complaint of the prolonged heavy period, abdominal pain, weakness, losing weight, and red and purple spots on the skin. All necessary investigation was done, and she sounds like idiopathic thrombocytopenic purpura. Her treatment for ITP started as she was diagnosed, and she is now maintaining better health status. We advised her not to take any medication without doctors Prescription and come for follow-up as appointed by a doctor. Strictly advised her for follow-up check-ups and with their outcomes.

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