

Assignment: blood disorder



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Assignment: Blood Disorders There are many blood disorders and some we cause ourselves, some are genetic and are caused even before we are born. A person can be affected with blood disorder at any time in life, lifestyle, family history and some symptoms are always in which blood disorders are identified. Then we have our environmental issues also can cause blood disorders, it is very important to know what we are dealing with and how to prevent measures that will help us avoid any of the self made blood disorders.

Some are being caused by bad nutritional habits, but we are very fortunate to be able to control some blood disorders; however there are those countries that have little available to overcome certain kinds of anemia. The blood disorders in the three case scenarios are all different, Iron deficiency anemia is a blood disorder that is affecting Amy who is a 4 year old Caucasian female, she has been complaining of being tired all the time she is a picky eater, because her mom cannot afford to feed a large family due to her being a single mom.

The lack of iron deficiency or insufficient iron intake in the hemoglobin of the red blood cells can cause iron deficiency anemia. Amy needs a physical exam and needs blood work done to determine the cause of her anemia. Special blood tests are used to detect rare causes of anemia the blood test that Amy needs to get done are CBC (complete blood count) that determines the volume, size, number and hemoglobin content of her red blood cells. If the physician is still in doubt further testing may include checking the blood levels of iron and ferritin, a protein that binds iron in the blood, which may more accurately reflect the body's iron level.

Sometimes iron deficiency may not cause any symptoms, when iron deficiency has progressed to actual anemia, there can be fatigue, unusually pale skin, and a decreased ability to exercise. Since Amy does not eat a proper diet she really needs this blood test done and be seen by a pediatrician on regular basis. The recommended treatment for Amy is to improve her eating habits and to be monitored of her red blood cell count including her iron count. After being seen by a pediatrician she will be given a list of foods that she needs to include in her daily meals.

Lean red meats, beans, egg yolk, whole grain products, nuts (making sure that Amy is not allergic to nuts) including seafood these foods are a great source of iron; she will also be given iron supplement to take on daily basis. Amy should go and see her pediatrician every three months to have her blood drawn to make sure that her iron deficiency anemia has improved. Iron deficiency usually is treated with iron tablets, syrups for children or injections; iron deficiency will last as long as its cause persists. Iron usually needs to be taken for many months to bring the levels back to normal.

In this case we have Marcus a 5 year old African-American male who just moved to New York City, and is visiting his new pediatrician for a kindergarten physical. Marcus' mother tells the nurse that she carries the "trait" and she wants Marcus to be screen for it. The "trait" is sickle cell which is a blood disorder that is inherited when there are two copies of the sickle cell gene in which one from each parent is present. Sickle cell disease is an inherited blood disorder that affects nearly 100, 000 people in the United States. Sickle cell disease causes red blood cells to form into a crescent shape, like a sickle.

The sickle-shaped red blood cells break apart easily, causing anemia; Sickle cell disease is most common in Africans and African-Americans. It is also found in other ethnic and racial groups including people from South and Central America, the Caribbean, Mediterranean countries, and India. Marcus needs blood a blood test done to see if he carries the ‘ trait’ so he needs to give a blood sample. That blood sample is examined under a microscope, but sickle cell disease is diagnosed by a blood test call hemoglobin electrophoresis, which measures the amount of the abnormal sickle hemoglobin.

Marcus has not had any episodes of the disease he will have to take preventative measures to avoid having complications or onsets of symptoms. Sickle cell causes the blood vessels to become clogged and the body tissues are deprived of oxygen and that will cause unhealthy organs and tissues. That is why Marcus will have blood test done to determine if carries the “ trait’. In order to avoid any serious infection the pediatrician will have Marcus take penicillin until the age of 6 years old along with that he will be taking vitamin folic acid (folate) on a daily regime.

Avoiding temperatures that are too hot or too cold should be avoided, Marcus must also drink plenty of water; also Marcus’ mom needs to take him to regular office visits in order to prevent the disease and to stay healthy. There is no cure for most people with sickle cell anemia. However, treatments can relieve pain and help prevent further problems associated with sickle cell anemia. Scientific research is being conducted to find ways to prevent cell. Thorough studies of gene therapy and ways to replace abnormal genes that cause sickle cell are being conducted on regular basis.

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There are treatments when people are in pain having fever, weakness or having hard trouble breathing, they will have IV treatments (intravenous) fluids and antibiotics. The sickle cell is passed from generation to generation in a pattern of inheritance; people with sickle cell have one normal gene and one defective form of the gene. According to the Mayo clinic a Bone marrow transplant offers the only potential cure for sickle cell anemia. But, finding a donor is difficult and the procedure has serious risks associated with, including death.

Our last case is Richard who has noted over the past several weeks that he is having more bruises or ecchymosis, all over his body. After coughing this morning, he noticed tiny red marks all around his eyes. Richard could have a blood disorder that is called Thrombocytopenic it is a blood disorder that causes a reduction of platelets in the blood and it could be cause by certain drugs as heparin, histamine blockers, also this disorder also causes the blood not to properly clot and it is very important that Richard avoids any type of activity that will cause bruising and open wound injury.

Richard will need a blood test to find out what is causing his blood disorder. He will need to visit his physician to have blood work done; the blood work will include a CBC, PTT, (Partial Thromboplastin Time), PT (Prothrombin Time) these test are done to evaluate the blood for its ability to clot, since that is what could be why Richard is bruised easily. Lab tests to determine the platelet count and clotting function may also be done.

If indeed a diagnosed is confirmed then there is a treatment plan that will be discussed. Treatments can vary according to the cause. Corticosteroids may

be used to increase platelet production. Lithium carbonate or folate may also be used to stimulate the bone marrow production of platelets. Again there is no cure for this blood disorder, but there are treatments which are steroids to help prevent bleeding by decreasing the rate of platelet destruction.

These blood disorders have several things in common; there are no cures and no way to prevent them. Researchers are continually working very hard to find a way to prevent and hopefully cure these blood disorders. The best way to diagnose these blood disorders are to have blood test done to prevent and get treatment early in symptoms. But the most effect way with these blood disorders is by obtaining an early diagnosis as soon as symptoms are presented so a treatment can be started as soon as possible.