Evolution of disease

Evolution of Disease Sickle Cell Anemia Sickle Cell Anemia is a disease that which the red blood cells form an abnormal sickle or crescents shape. Red blood cells are very important to the human body because they carry oxygen throughout the body. The main causes of Sickle cell is when the cells in the body mutate into abnormal cell called haemoglobin S. Haemoglobin S causes the red blood cells to become sickle shaped, rigid. This causes to make it more difficult for the cells to flow the vein to deliver the oxygen. Sickled cells can also stick to walls of the vein that can cause blood clotting which leads to less blood flow which can lead to organ damage, pain and infection. The disease is passed through families so people can inherit the sickle cell gene when only one parent has the sickle cell gene the child can have sickle cell trait where the child has only minor traits of the disease and like a normal life. When both parents have the sickle cell gene the child has to suffer through the symptoms of sickle cell anemia. The symptoms do not show until the person is 4 months old. Most patients that have sickle cell anemia have painful episodes called crises which can last from hours to days. The episodes are very painful especially to the bones of the back and the chest. Patents can have many crises in one year or only have one crisis per year. Some other symptoms can be fatigue, paleness, rapid heart rate, shortness of breath, jaundice (yellowing of eyes and skin), blood clotting and painful joints caused by arthritis. Sighs and tests that can diagnose sickle cell anemia are bilirubin, blood oxygen, complete blood count, serum potassium. Treatments that help manage and control the symptoms. And limit the numbers of crises. Patients with sickle cell anemia need ongoing treatment even during the time not having painful crisis. Treatments that can help are blood transfusion, pain medicines and plenty of fluids. Bone marrow or stem

cell transplants can sure sickle cell anemia but are not an option for most patients because they cannot find a well-matched stem cell donor. . Sickle Cell Trait A person that is diagnosed with sickle cell trait is heterozygous meaning that they may maybe minor symptoms but usually do not because they have enough normal cells to live a normal life without being worried have having attacks or complication. However it has been found that people who have sickle cell trait have asthma. When people are in an environment that has Malaria they get infected but people who have sickle cell do not the same goes for people that have sickle cell trait. The reason why Malaria infectious disease is attacks the red blood cells in order to breed and survive within the body. People who have sickle cell trait have both normal and abnormal cell therefore, Malaria does not affect their body due to limited sources. Evolution of Sickle Cell Anemia In 1904, a man traveled from Grenade to the United States to study in Dental Sugary. A couple months later the man was admitted into a hospital in Chicago where he developed severs respiratory distress and led ulcer both are symptoms of sickle cell. Dr. Earnest E. Irons performed a routine blood test and urine test and found “ pear shaped, elongated" sickled blood cells in the man bloods. Not until 1910 Dr. James Herrick the supervisor of Dr. Irons published an article describing the blood cells of this patient. This was the first documented and recorded case of sickle cell in western medicine. In 1915 the third case of sickle cell was described during this time Dr. V Emmel suggested that the diseases had a genetic basis. CITATION Sickle Cell Trait: Disease or Evolutionary Advantage." Sickle Cell Trait: Disease or Evolutionary Advantage. N. p., n. d. Web. 08 Oct. 2012. . Board, A. D. A. M. Editorial. Sickle Cell Anemia. U. S. National Library of Medicine, 18 Nov. 0000. Web. 08 Oct. 2012. . " Sickle-Cell

Disease History." Sickle-Cell Disease History. N. p., n. d. Web. 08 Oct. 2012. . " A History of Sickle Cell Disease - The Sickle Cell Association of Ontario." A History of Sickle Cell Disease - The Sickle Cell Association of Ontario. N. p., n. d. Web. 08 Oct. 2012.