• both statements are true

Erythroblastosis fetalis is a potentially life-threatening blood disorder in a fetus or newborn infant. It develops in an unborn infant when the mother and baby have different blood types. The mother produces antibodies that attack the developing baby's red blood cells.

ABO incompatibility is a reaction of the immune system that occurs if two different and not compatible blood types are mixed together. **Rh incompatibility** is a condition that develops when a pregnant woman has Rh-negative blood and the baby in her womb has Rh-positive blood.

Remember: Patients with **hemolytic anemias** (i.e., erythroblastosis fetalis, sickle cell anemia and the thalassemias) often have problems that result from an **increase in bilirubin levels**. This bilirubin is the breakdown product of hemoglobin which is released from dying erythrocytes.

Examples include:

- Elevated levels of **urobilinogen,** which is a compound formed in the intestine by the reduction of bilirubin.
- Elevated levels of **unconjugated** bilirubin, which is water-insoluble bilirubin. Normally, this unconjugated bilirubin is carried by albumin and travels to the liver, where it becomes conjugated with glucuronide to become water-soluble. This would then be secreted with other components of bile into the small intestine. Toxic accumulation of unconjugated bilirubin in the **brain and spinal cord** is called **kernicterus**.

1. **Beta thalassemia major** is also known as **Mediterranean anemia** or **Cooley anemia**. It is characterized by marked anemia and splenomegaly, as well as generalized hemosiderosis.
2. **Beta thalassemia minor** - clinical manifestations include: increase in hemoglobin A2.
3. **Alpha thalassemias** are the most common forms of thalassemia in Southeast Asia.