

Name: Zeeshan Aurangzeb

ID:14502

Department:MLT

Answer 1.

Neonatal death occurs because of RH incompatibility. In the aforementioned case it's clearly stated that mother and father blood groups is completely different. In given scenario the child blood group is same as that of his father and is in complete contrast of mother blood group as a result mother immune system produces immunoglobulins (Antibodies Ab) against child erythrocytes which leads to destruction of child RBC known as hemolysis. Because of this hemolysis the death of children occur. In other words it is RH- incompatibility which causes the death of the children.

Treatment for Rh- incompatibility:

In order to counter Rh-incompatibility crisis an **Anti-D injection** is used.

Q2.

Explain the concept of single donor platelets and random donor platelets in own words.

Answer:

Random donor platelet concentrate:

- In random donor platelets concentration whole blood is collected from donor and from whole blood the platelets is removed.
- Volume should be 50ml.
- 22° to 24 ° is storage temperature.
(Platelets are removed from whole blood via centrifugation)

Single donor platelets concentration:

- In single donor platelets concentration, platelets are obtained with the help of aphaeresis machine and the remaining blood go back to the circulatory system of donor.
- We can obtain 300 ml of platelets from one donor through this process.
- Single donor platelets procedure is more effective then Random donor platelets procedure.
- One unite of single donor platelets(SDP) is equal to 6 – 8 units of Random donor platelets.

Q3.

Solve the following table.

Answer:

	Reaction of cells tested with		Reaction of serum tested against		ABO Group
	Anti-A	Anti-B	A-Cell	B-cell	
01	O	O	+	+	O
02	+	O	O	+	A

03	O	+	+	O	B
04	+	+	O	O	AB