

Bleeding and clotting time:

Bleeding time (BT): it is a test for platelet function:

1-stick to each other and form plug (aggregate).

2-break and release thromboplastin .

So the bleeding time is defined as the time taken for a standard skin wound to stop bleeding . When upon vessel injury , platelets adhere and form a hemostatic platelet plug .bleeding time measures the ability of these platelets to arrest bleeding and therefore measures platelet number and function .

Bleeding time performed as a screening procedure used to detect both congenital and acquired disorders platelet function. so the duration of bleeding from standard puncture wound of the skin is a measure of the function of platelets as well as the integrity of the vessel wall. there are several methods of performing the bleeding time:

1- Duke method.

2- IVY method.

1-Procedure of Duke method:

a-Clean the lobe of the ear or tip of a finger with alcohol and let dry.

b- Pierce the ear lobe (or tip of a finger) with the lancet .making the incision 3mm deep start the stopwatch.

c- Blot the blood with the filter paper at regular 30 second intervals. move the filter paper so that each drop touches a clean area .do not touch the incision with the filter paper.

d- When the filter paper no longer shows sign of blood stop the stopwatch and record the time , normal values of 1 to 5 minutes.

2-Procedure of IVY method:

- a- Place a blood pressure cuff on the patients arm above the elbow. inflate the cuff and maintain pressure at 40mm Hg.
- b- Cleanse the outer surface of the patients for arm with alcohol .
- c-Holding the skin tightly make three small punctures about 3mm deep and 1.5cm apart start the stopwatch.
- d-Blot the blood at regular 30 second intervals with the filter paper .move the filter paper so that each drop of blood touches a clean area. Do not touch any of the incision with the filter paper.
- e- When the filter paper no longer shows signs of blood ,stop the stopwatch.
- f- The average of the times for bleeding to stop from the three puncture sites is record as the bleeding time .normal values of 1 to 6 minutes.

Clotting time (CT):

It is the time required for blood to clot without the presence of any substance in Capillary tube.

Procedure:

1. Clean your finger with spirit and allow the spirit to dry.
2. Pricked the finger by lancet .remove the first drop of blood.
3. Squeeze the finger to obtain a larger drop of blood and fill the capillary tube with blood.
4. The capillary tubes are sealed plasticine and immersed in water bath at 37centigrade.
5. After one minute start breaking small pieces of the capillary tube every 30 second until a fibrin thread is seen between the two broken ends.
6. By these methods the normal clotting time is 5 to 10 minutes at 37 centigrade