Experiment #: 11

To determine bleeding time (B.T) and dotting time (C.T) of your own blood

DEFINITIONS

1. Bleeding time: It is the time taken for stoppage of bleeding from the site of skin puncture due to the formation of haemostatic plug.
2. Clotting (coagulation) time: It is time taken by the clotting factors of the blood to start haemostatsis and the production of a proteinous web of fibrin thread to from a fibrin clot. When blood is removed from the vessel. There are four stages

1. Vasoconstriction
2. Formation of platelet plug
3. Coagulation of blood
4. Formation of fibrin clot

Definition

It is the time taken by the blood to stop oozing from a minor injury by local vaso constriction and platelet plug formation.

A. DUKE METHOD OF BLEEDING TIME

Apparatus

Pricking needle (disposable blood lancet), stop watch, spirit swab, filter paper and subject.

Procedure

1. Get 2-3 mm deep prick after cleaning tip of ring finger of left hand (or ear lobule) (Figure 17 & 18) start the stop watch from the moment blood starts from the site of puncture.
2. Start the shop watch from the moment the bleeding start from the site of puncture.
3. Apply the edge of filter paper to the oozing blood drop and take this time as zero reference (Zero time).
4. Remove the blood every 15 second by touching the finger gently on a filter paper till bleeding stops and no stain is visible on filter paper (rounded to the nearest 30 seconds).
5. Note the time when no trace of blood on the filter paper.
6. Count the spots of blood on filter paper and express bleeding time in minutes and seconds. Normal bleeding time is 1-6 min by duke method.
7. Maximum upper limit of bleeding time is 9 min. clotting → 6 – 10min.

Other Methods

1. Saline beaker method
   - Prick is given in all sterile conditions and time is noted.

OBSERVATIONS AND RESULTS

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STUDENT'S NOTES

Ans:- 1

@ Bleeding time :-
It is a time taken for stoppage of blood from the site of skin puncture.

(b) Clotting time :-
Time taken by clotting factors of blood to start haemostasis and production of proteinous web of fibrin thread to form fibrin clot.

Ans :2 :- If the value beyound the normal range then it shows the abnormalities with the platelets and clotting factors less or more we can predict.

Ans : 3 :- With rise in temperature (in summer) there is prolongation of bleeding time (vasodilation) and shortening of clotting time

Ans 4 :- Hemophilia

Ans 5 :- In case of purpura bleeding time increases and clotting time inc in haemophilia.