

Diploma in Pharmacy 1st Year

Human Anatomy & Physiology Practical

To perform and report clotting time and bleeding time of the blood.

Aim:

To perform and report clotting time and bleeding time of the blood.

Reference :

Dr. Gupta G.D , Dr. Sharma Shailesh , Dr. Sharma Rahul Kumar ,“Practical Manual of Human Anatomy and Physiology” Published by Nirali Prakashan , Pg.No 67 - 70

Material and Apparatus Required

Sterilise of disposable, needle, spirit, cotton, a thin (Wright's), capillary tube , small beaker, test tube, slide and a stop watch.

Theory :

Coagulation and bleeding are important because they indicate the time. It takes time for the bleeding to stop and a clot to be formed over the wound, preventing further bleeding. It is also significant during the surgery. Blood coagulation takes 2 to 6 minutes in most cases, while bleeding takes 1 to 3 minutes. The clotting time is the time it takes for blood to turn into fibrin after it escapes from the blood vessel. It is significant in the sense that excessive bleeding can signal a variety of abnormal disorders, including haemophilia and Vitamin K deficiency, etc.

Procedure

- 1) The finger should be sterilised and then pricked to collect blood into a capillary tube.
- 2) When sufficient quantity of blood is available it should be received in a small beaker or a test tube.
- 3) The punctured finger should be left as it is, so that the bleeding time can be recorded from it
- 4) Some fresh blood should be left to stand in a beaker or a large test tube for some time
- 5) Then the various changes that take place till the clot is formed should be observed. leaving a layer of yellowish serum (supematant) over the thickened mass,
- 6) The blood can be drawn into Wright's capillary straight from the finger, when very small quantity of blood is available. The blood enters into the capillary itself due to capillary.
- 7) The mhe should be full without a bubble in it
- 8) The capillary should be left horizontally on a table or a similar flat surface and the stop watch should be started
- 9) An 8-10mm long piece of this tube should be broken after every few minutes by carefully pulling away the broken pieces gently and slowly till the thread of blood starts forming between the broken ends
- 10) As soon as thread is observed, the stopwatch should be stopped and the time taken by the blood for clotting should be recorded. It should be within 2-6 minutes.

Result: The examination of clotting and bleeding time of the sample blood was performed.