Bleeding Time

PRINCIPLE

The bleeding time is the time taken for a standardized skin cut of fixed depth and length to stop bleeding.

Prolongation of the bleeding time occurs in patients with thrombocytopenia, von Willebrand disease, Glanzmann’s thrombasthenia, Bernard-Soulier syndrome, storage pool disease, and other platelet disorders. Fibrinogen is required, and a role for FV has been suggested. The bleeding time can therefore be prolonged in patients deficient in fibrinogen or FV. Prolongation also occurs in some patients with renal disease, dysproteinemias, and vascular disorders.

MATERIALS/EQUIPMENT

- sphygmomanometer
- cleansing swabs
- template bleeding time device
- filter paper 1 mm thick
- stopwatch

METHOD

1. The sphygomanometer cuff is placed around the upper arm and inflated to 40 mm of mercury. This pressure is maintained throughout the test.

2. The dorsal surface of the forearm is cleaned, and the bleeding time device placed firmly against the skin without pressing. The trigger is depressed and the stopwatch started.

3. Superficial veins, scars, and bruises should be avoided.

4. At 30-second intervals, blot the flow of blood with filter paper. Bring the filter paper close to the incisions without touching the edge of the wound.

5. Record the time from puncture to cessation of bleeding.
INTERPRETATION
The normal range in adults is up to eight minutes but may vary according to method used.

NOTES
• At the time of writing, there are two commercially available disposable devices for performing the bleeding time. A normal range should be established locally, regardless of the device used.

• The incision should be made in a direction parallel to the length of the arm. Cuts made perpendicular bleed longer.

• An abnormal result should be repeated.

• It is not necessary to record endpoints if bleeding continues beyond 20 minutes.

• The effect of drugs interfering with platelet function should be considered. For example, drugs containing Aspirin can cause prolongation. So, where possible, these should not be taken for seven days prior to testing.

• There is a possibility of scarring at the site of bleeding time incisions. This should be brought to the attention of patients prior to performing the incision.

REFERENCE