出血疾病 Bleeding Disorders 的診斷及處理流程-I

Patient with BRUISING OR BLEEDING

History

Exclude:
- Sepsis
- Liver disease
- Uremia
- Physical abuse
- Henoch-Schönlein purpura

Physical examination

Etiology

Known coagulopathy

Clotting factor deficiency

Consider:
- Fresh frozen plasma, cryoprecipitate, desmopressin acetate, or factor concentrate for significant bleeding

von Willebrand's disease

Consider:
- Desmopressin acetate or cryoprecipitate for significant bleeding

Platelet function defect

Consider:
- Desmopressin acetate or platelet transfusion for bleeding

Unknown coagulopathy

PT, PTT
Platelet count
Bleeding time

Abnormal

Thrombocytopenia (p 296)

Consider:
- Hematology consultation

Normal

Consider:
- Hematology consultation

Trauma
Mild von Willebrand's disease
Factor XIII deficiency
Alpha-2-antiplasmin deficiency

Consider:
- Hematology consultation
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出血疾病 Bleeding Disorders 的診斷及處理流程-II

Consider:
Hematology consultation

- Normal PT
  - ↑PTT
    - Normal or ↑bleeding time

  Consider:
  Assay Factors VIII, IX, XI von Willebrand’s testing
  Lupus inhibitor

  Hemophilia (VIII, IX, XI) von Willebrand’s disease
  Lupus anticoagulant
  Heparin effect

  Consider:
  Desmopressin acetate
  Factor concentrate
  Cryoprecipitate
  Protamine sulfate

Recheck drug history

Consider:
  BUN, creatinine, urinalysis
  von Willebrand assays
  platelet function tests

Drug effect

Consider:
  Uremia
  von Willebrand’s disease
  Platelet function defect

Consider:
  Desmopressin acetate
  Cryoprecipitate
  Platelet transfusion

- ↑PT
  - Normal PTT
    - ↑bleeding time

  Normal bleeding time

Consider:
  Fibrinogen, thrombin time
  Factor VII assay
  Liver function tests

Factor VII deficiency

Liver disease

Vitamin K deficiency

DIC

Liver disease

Factor deficiency (II, V, X)

Vitamin K deficiency

Consider:
  Fresh frozen plasma
  Vitamin K

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  Fresh frozen plasma
  Vitamin K