Algorithm for Analysis of Patients with Suspected Platelet Dysfunction (01-05-13)

Bleeding signs and symptoms
History
Examination
Bleeding score
Appendix 1

CBC and blood film

Normal platelet count

Bleeding time
PFA-100

Repeat at least once

VWD testing

VWD type 2B
Platelet-type VWD

Normal

abnormal

Platelet aggregation studies

normal

abnormal

Repeat at least once

Repeat at least once

Blood cell morphology
Manual platelet count

Query
VWD type 2B
Platelet-type VWD

Normal platelet count

Low platelet count

Platelet size (MPV)

Large

Normal

Small

Repeat at least once

Query

Wiskott-Aldrich
XLT

Bone marrow studies

Unremarkable morphology

Immune function

Abnormal morphology

Without acute history

With acute history

Neutrophil inclusions

Immunofluorescence

MYH9-related disorders

Mutational analysis
Appendix 2

GTP, BSS GPS

Flow cytometry

GT, BSS P2Y12 def

ITP

Consumptive thrombocytopenia


Blue box: Investigation
Yellow box: Results
Circle: Diagnosis
Dotted circle: Query diagnosis

Mild abnormalities
Acquired defects
Drug effects
Renal disease
Liver disease
MDS

Granule and secretion studies
Electron microscopy

10 SGD
20 SGD
GPS

Secretion defect


BSS: Bernard-Soulier syndrome
CAMT: Congenital amegakaryocytic thrombocytopenia
ATRUS: Amegakaryocytic thrombocytopenia with radio-ulnar synostosis
FPD/AML: Familial platelet disorder and predisposition to acute myelogenous leukemia
GT: Glanzmann thrombasthenia
GPS: Gray platelet syndrome
SGD: Storage granule disorder
TAR: Thrombocytopenia with absent radii
THC2: Autosomal dominant thrombocytopenia
XLT: X-linked thrombocytopenia

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