

Algorithm for Analysis of Patients with Suspected Platelet Dysfunction (01-01-09)

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

BSS: Bernard-Soulier syndrome
 CAMT: Congenital amegakaryocytic thrombocytopenia
 CTRUS: 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

Bleeding signs and symptoms
History
Examination
Bleeding score

CBC and blood film

Normal platelet count

Low platelet count

Bleeding time
PFA-100

Repeat at least once

VWD testing

Repeat at least once

Repeat at least once

normal

abnormal

Platelet aggregation studies

Repeat at least once

Repeat at least once

normal

abnormal

Mild abnormalities
 Acquired defects
 Drug effects
 Renal disease
 Liver disease
 MDS

Non-specific pattern

Specific pattern

VWD type 2B
 Platelet-type VWD

Granule and secretion studies
Electron microscopy

Flow cytometry

GT, BSS
 P2Y₁₂ def

1^o SGD
 2^o SGD
 GPS

Secretion defect

Genotyping

Platelet size (MPV)

Large

Normal

Small

Blood cell morphology
Manual platelet count

query
 CAMT
 CTRUS
 FPD/AML
 TAR
 THC2

query
 Wiskott-Aldrich
 XLT

Bone marrow studies

Unremarkable morphology

Abnormal morphology

Without acute history

With acute history

Neutrophil inclusions

Immunofluorescence

MYH9-related disorders

ITP
 Consumptive coagulopathy

Developed by: Drs. S.J. Israels, W.H.A. Kahr & M.L. Rand