Thrombotic Microangiopathies

TTP, typical HUS and atypical HUS share anemia and low platelets: cause and treatment set them apart

ALL

Common to all

microangiopathic hemolytic anemia (schistocytes)
+ thrombocytopenia ± kidney failure

TTP

TTP

ADAMTS13 deficiency (< 5%) · neurological signs predominate
· urgent plasmapheresis · do not transfuse platelets

HUS

Typical HUS

E. coli O157:H7 (Shigella, pneumococcus) ·
child with prior bloody diarrhea · kidney failure
predominates · supportive care, avoid antibiotics

aHUS

Atypical HUS

complement dysregulation (factors H, I, B, MCP) ·
recurrent episodes, worse prognosis · eculizumab

Neurological
Predominant signs:
TTP (ADAMTS13)

Child + bloody diarrhea
Typical HUS (E. coli O157:H7)

Recurrent episodes
Atypical HUS (complement)

In these microangiopathies PT, aPTT and fibrinogen are normal (unlike DIC) · unlike ITP, there is always anemia with schistocytes