THANZ Multidisciplinary VITT Guideline for Doctors

Background

A severe prothrombotic syndrome associated with thrombocytopenia has been described in a small number of patients exposed to the COVID-19 AstraZeneca and Janssen (Johnson & Johnson) vaccine. This syndrome is currently being called several names: VITT (vaccine-induced immune thrombotic syndrome), TTS (thrombosis with thrombocytopenia syndrome), and VIPIT (vaccine-induced prothrombotic immune thrombocytopenia). For the purposes of this Thrombosis & Haemostasis society of Australia New Zealand (THANZ) Multidisciplinary guideline, the term VITT will be used. It has been observed in early reported cases that platelet transfusions and administration of heparin may lead to progressive thrombosis.

What causes this syndrome?

The exact pathophysiology of the syndrome is still unknown however, the majority of cases are associated with the presence of pathological antibodies against platelet factor 4 (PF4) or PF4/polyanion complexes. These antibodies are only detectable by specific ELISA methods in specialized laboratories.

When should I suspect VITT?

- Onset of symptoms 4 – 28 days after vaccination, AND
- Thrombosis – cerebral venous sinuses, splanchnic vein; VTE/PE and arterial also reported; AND
- Thrombocytopenia (<150 x 10^9), AND
- High d-dimer (typically > 5 x ULN)

Patient presents with acute onset symptoms/ signs of thrombosis or thrombocytopenia* AND received AZ or Janssen (JJ) COVID-19 vaccine in last 28 days

DO NOT give heparin anticoagulant
Obtain URGENT FBC, APTT, PT, fibrinogen and D-dimer within 4 hours

Platelets < 150 x 10^9/L **and** D-dimer at least 5 times upper limit of normal (ULN) +/- low fibrinogen†

NO → **VITT unlikely**
- Consider alternative diagnoses including vaccine-unrelated VTE and investigate and manage accordingly
- GP/outpatient follow up for resolution of symptoms or repeat blood tests and/or imaging if symptoms persist

YES

Refer to ED or organise URGENT imaging according to symptom site
Collect and send samples for VITT testing#

Thrombosis confirmed?

NO → **Possible VITT**
- Consult haematologist
- Collect and send samples for VITT testing#
- Consider NON-heparin **prophylactic** anticoagulation **and/or** IVIg

YES → **Probable VITT**
- NO platelet transfusion

Consult haematologist to advise on:
- NON-heparin **therapeutic** anticoagulation
- Collect and send samples for VITT testing#
- Requirement for URGENT IVIg 1-2 g/kg in 2 divisions

SCAN ME
#Link to VITT Testing Form

*Symptoms / signs
CVT: persistent headache, visual changes, focal neurological symptoms, seizures, coma, secondary ICH
Splanchnic vein thrombosis: abdominal pain
PE/DVT: chest pain, dyspnoea, leg pain, redness or swelling
Arterial ischaemia: pallor and coldness in limb, myocardial ischaemia
Thrombocytopenia: petechiae, acute onset bruising or bleeding
†If normal platelet count and high d-dimer with persisting symptoms, consider repeat FBC and/or imaging

SCAN ME
Link to THANZ Advisory Statement (updated weekly)