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A severe vaccine side effect: how UCLH helped identify and define it

In early 2021, the UK released new hope in the fight against COVID-19 in the form of the Pfizer and Oxford/Astrazeneca vaccines

But by mid-March, a rare and unexpected severe side effect was noticed for the Oxford/Astrazeneca vaccine at UCLH and Birmingham NHS Trust

Admission to UCLH
12-days post first dose

Blood test
Low platelet count

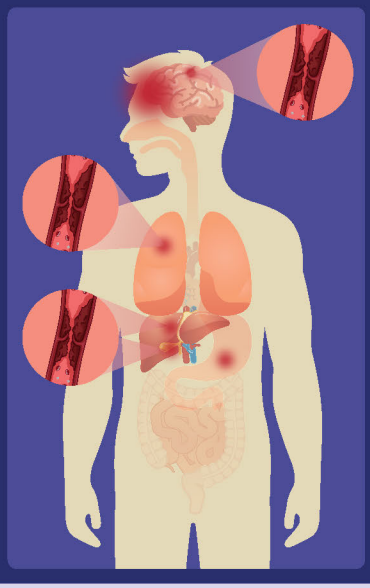
Symptoms
Stroke, epileptic fits, severe headache, vomiting, confusion

Treatment
Plasma exchange, high-dose steroids, intravenous immunoglobulin, non-heparin blood thinners (argatroban, fondaparinaux, apixaban)

Imaging
Multiple blood clots in the brain, lungs, and liver; hemorrhage in the brain

Discharge
4 weeks after admission

21-year-old previously healthy male



The syndrome was named vaccine-induced immune thrombocytopenia and thrombosis (VITT)

Oxford/Astrazeneca vaccine trials in children were stopped across the UK

A daily meeting of experts from various fields was set up to discuss all cases of VITT and develop strategies to treat and prevent it

Patients with VITT in the UK have been followed up and there have been no new cases after July 2021

The UK has supported other countries (North America, South America, Canada, Australia, and India) with the knowledge from these meetings

Only Pfizer booster vaccines have been rolled out in the UK

Good recording of post-marketing side effects and prompt action upon detection of VITT has been crucial to safely vaccinating the population

Perry *et al.,* *The Lancet* (2021) | **Scully *et al.,*** *The New England Journal of Medicine* (2021) | **Pavord *et al.,*** *The New England Journal of Medicine* (2021)