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## Coronavirus Causes Blood Clots

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### Why in News

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Recently, doctors around the world have noticed a raft of clotting-related disorders in **Covid-19** patients, which causes **benign skin lesions on the feet (Covid toe) to strokes** and blood-vessel blockages.

Thus, Covid-19 is being seen as less of a typical respiratory disease, and more of one that involves dangerous clotting.

### Key Points

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- **Misconception of Only Lung Damage:**
  - Initially it was considered that the vast **majority of lung damage in Covid-19 patients was due to viral pneumonia.**
  - But the **autopsies** of the Covid-19 patients shows that **clumps of platelets inside blood vessels, or microthrombi**, to be the reason for rapid and dramatic deterioration of condition of patients.
- **Development of Thrombi:**
  - Usually these blood clots are called **thrombi** — that form in patients' arterial catheters and filters used to support failing kidneys.
  - The clots impede blood flow in the lungs, which develop severe blood-oxygen deficiency, causing difficulty in breathing.
- **Pulmonary Embolism:**
  - Studies have found that as many as **30% of severely ill Covid-19 patients** suffered a so-called **pulmonary embolism** — a potentially deadly blockage in one of the arteries of the lungs.
  - **Pulmonary embolism** often occurs when bits of **blood clots** from veins deep in the legs travel to the lungs.
  - According to a study, the prevalence of pulmonary embolism was 1.3% in critically ill patients without Covid-19.

- **Detection of Blood Clots:**

The D-dimer blood test is being used around the world to monitor clot formation in patients, including those with Covid-19, and patients are also being dosened with heparin and other anticoagulant medications.

- **History of Blood Clotting Diseases:**

- The 1918 **Spanish flu** pandemic, caused by a novel strain of influenza, was also linked to downstream damage from clots that could end lives dramatically.
- Viruses including HIV, dengue and **Ebola** are all known to make blood cells prone to clumping.
- The pro-clotting effect may be even more pronounced in patients with the coronavirus.

## **Issues Involved : Blood Clottings with Covid-19**

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- **Lung damage:** If untreated, **large arterial lung clots can put overwhelming strain on the heart**, causing cardiac arrest.

Even **tiny clots in the capillaries of lung tissue** may interrupt blood flow, undermining attempts to help oxygenate patients with ventilators.

- **Vital organ damage:** Clots may form in other parts of the body, potentially damaging vital organs including the heart, kidneys, liver, bowel, and other tissues.
- **Mistaken of Covid-19 recurrence:** Covid-19 survivors who have subsequent difficulty breathing, might mistakenly believe it's a recurrence of coronavirus infection, when it may actually be a reactivation of the whole clotting problem.
- **Subsequent disease:** Pulmonary embolism also causes **pulmonary hypertension**, another dangerous complication that can cause fatigue and shortness of breath.
- **Risk:** Patients and doctors alike may not be aware of the risks or the potential need for treatment.

**Source: IE**