

# Evaluating the risks of adverse maternal and neonatal outcomes among unvaccinated pregnant mothers admitted with Covid-19 in Ampang Hospital, Malaysia

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## ABSTRACT

**Introduction:** Covid-19 infection during pregnancy increases risks of maternal and neonatal adverse outcomes. We aim to evaluate the risks of Covid-19 related maternal and neonatal adverse outcomes among unvaccinated pregnant mothers in Ampang Hospital, Malaysia. **Method:** This was a retrospective cohort study of all Covid-19 positive pregnant mothers who were admitted to Ampang Hospital from January 2021 to October 2021. Data on vaccination status, Covid-19 severity, ICU admission, intubation, maternal mortality, mode of delivery, poor APGAR score at delivery (<5 at 10 minutes), and preterm delivery were analysed. **Results:** A total of 795 pregnant mothers were included. 53.46% (425) were unvaccinated. 73% (581) were admitted with Covid-19 Category 2. 88 (11.07%) eventually required intensive care while 69 (8.68%) required intubation. All 6 (0.75%) patients who died were unvaccinated. Of the 168 deliveries, 54.8% (92) had caesarean section. 4% (23) of babies had poor APGAR score. There were 58 (36.9%) preterm deliveries, majority of which were iatrogenic (42,68.9%). Unvaccinated mothers who contracted Covid-19 were at higher relative risks of severe Covid-19 (Categories 4&5) 3.92 (95% CI 2.23-6.87) and ICU admission 2.78 (95% CI 1.74-4.44). Pregnant mothers who developed severe Covid-19 had increased risks of caesarean delivery 2.44 (95% CI 1.82-3.29), preterm delivery 2.88 (95% CI 1.87-4.45) and babies born with poor APGAR score 14.46 (95% CI 3.51-59.6). **Conclusion:** Unvaccinated pregnant mothers who contract Covid-19 are at increased risks of developing severe Covid-19 requiring ICU admission, caesarean section, preterm delivery, and delivering a baby with poor APGAR score.

# Free fluid in the abdomen: A rare manifestation of post-transfusion purpura (PTP) affecting small bowel in puerperium

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## ABSTRACT

**Introduction:** Post-transfusion purpura (PTP) is an uncommon but serious complication of blood transfusion, characterised by sudden onset of severe thrombocytopenia within 5-10 days of any platelet-containing blood products transfusion. It occurs due to alloimmunization against platelet antigens, which leads to acute profound thrombocytopenia, thus putting patient at risk of significant haemorrhage. **Case Description:** A 27-year-old Para 2 with ITP presented 28 days post Caesarean section with syncopal attack and persistent lochia rubra. She had received 4-unit platelets and 2-pint packed cells transfusion intrapartum. Patient was normotensive, tachycardic, with mild tenderness at suprapubic region. Vaginal examination was unremarkable. There was anaemia and severe thrombocytopenia. CT scan findings were suggestive of ischemic small bowel with suspicion of uterine segment wall defect/ rupture. She underwent diagnostic laparoscopy with subsequent exploratory laparotomy which revealed significant hemoperitoneal fluid within peritoneal cavity and generalised petechiae of the entire small bowel. **Discussion:** PTP can present with bleeding symptoms due to severe thrombocytopenia from any site, but usually from mucous membranes, as seen in our patient. Exposure to non-autologous blood stimulates the patient's immune system to make platelet alloantibodies. A later transfusion produces an anamnestic antibody recall that peaks within 5 to 10 days, causing platelet count to drop below  $10 \times 10^9/L$ . The mean duration of thrombocytopenia is 4 weeks, but it can last up to 5 months. This case portrays the importance of judicious use of blood transfusion in treatment. Untreated, PTP can be fatal. Treatment options include plasmapheresis, intravenous immunoglobulin, and corticosteroids.