

Pruritic Urticarial Papules and Plaques of Pregnancy (PUPPP)

– Should obstetrician be concerned?

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Introduction & Purpose

- Incidence of PUPPP: 0.07-0.3%
- Associated with preterm deliveries and increased risk of caesarean section.
- Objective: To analyse the obstetric outcome of pregnant women who were diagnosed to have PUPPP.

Methods

- Retrospective cohort study at the Royal Brisbane and Women's Hospital between 2013 to 2018
- 78 PUPPP versus 83 non-PUPPP in pregnant women

Outcomes

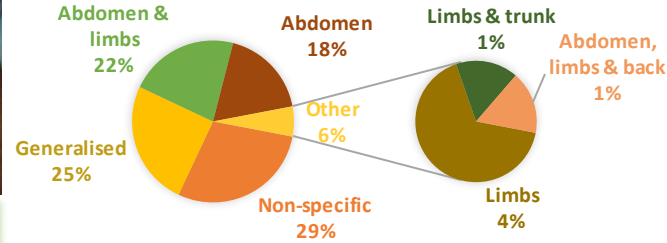
- Maternal and perinatal outcome
- Diagnosis and management of PUPPP

Results-Demographics

Study group: 78 Control group: 83

- No significant difference between the age, BMI and ethnicity between the 2 groups.
- PUPPP was strongly associated with parity, with markedly increased risk in nulliparous women Nulliparity: PUPPP 64.1%, Non PUPPP 38.6% (OR: 2.8; 95% CI: 1.3-5.8).

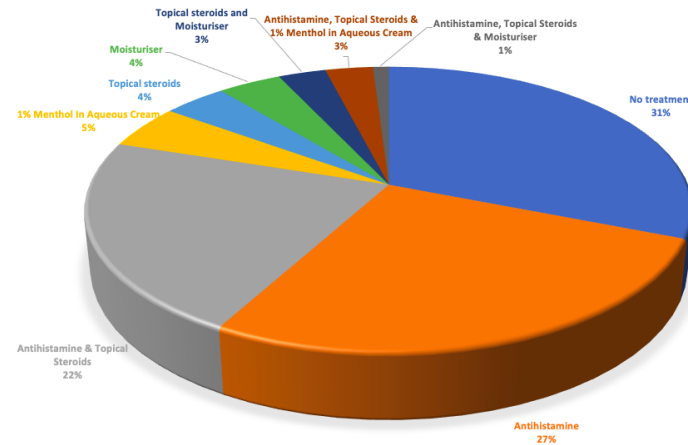
Symptoms of PUPPP- Distribution of Rash



PUPPP Characteristics

- Median gestation at diagnosis: 35 weeks
- 96.1% of cases were diagnosed clinically and 3.9% by histopathology
- 48.7% reported associated itch

Management of PUPPP



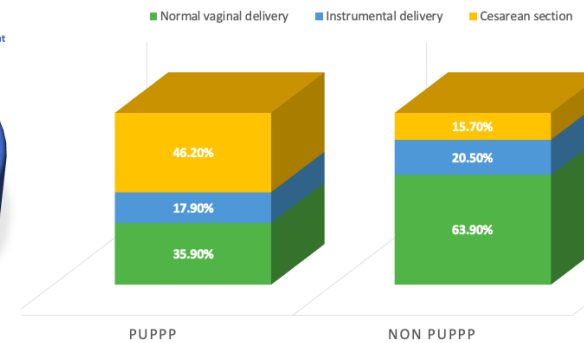
Antenatal Complications

- Pre-existing medical conditions were more common in the PUPPP group.
- Maternal history of cardio-respiratory conditions was strongly associated with PUPPP (OR: 3.6; 95% CI: 1.4-8.9; p=0.006).
- Women with PUPPP were more likely to develop antenatal complications compared to controls: 66.7% in the PUPPP group versus 14.5% in the control.

Medical Complications

- Decreased fetal movements, large for gestation age, gestational diabetes, antepartum haemorrhage and premature rupture of membranes were significantly higher in the PUPPP group compared to the controls.

MODE OF DELIVERY BY PUPPP STATUS



Mode of delivery and peripartum complications

- Women with PUPPP were more likely to have a Caesarean section compared to controls (OR: 4.6; 95% CI: 2.2-9.7).
- Median maternal length of stay was significantly higher in the PUPPP group: 3 days compared to 1 day in Non PUPPP (p < 0.001).
- No statistical difference between the 2 groups in postpartum complications.

Conclusion

- Nulliparous women were more likely to develop PUPPP.
- Women with PUPPP were more likely to develop antenatal complications.
- Women with PUPPP have a higher rate of caesarean section.
- PUPPP rash was mostly diagnosed clinically, which may require no treatment, antihistamine or a combination of antihistamine and steroids.
- Neonates born to mother with PUPPP had an increase rate of special care admission.

References

Brzoza, Z., Kasperska-Zajac, A., Oleś, E., & Rogala, B. (2007). Pruritic Urticarial Papules and Plaques of Pregnancy. *Journal of Midwifery & Women's Health*, 52(1), 44-48. <https://doi.org/10.1016/j.jmwh.2006.09.007>

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