



Anaesthetic, maternal and neonatal outcomes in cardiac transplant recipients

N Nadi, K Bhatia, A Zacharzewski

Department of Anaesthesia, Saint Mary's Hospital, Manchester, UK



Introduction

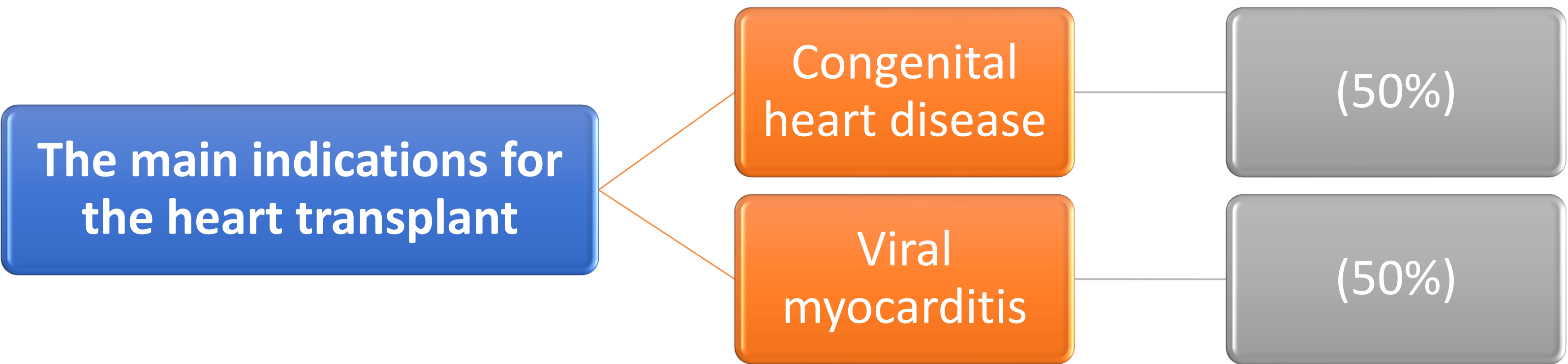
- The population of female heart transplant recipients of reproductive age is on the rise due to advances observed in transplantation.
- Significant maternal morbidity and mortality has been reported in pregnant women with a cardiac transplant.

Methods

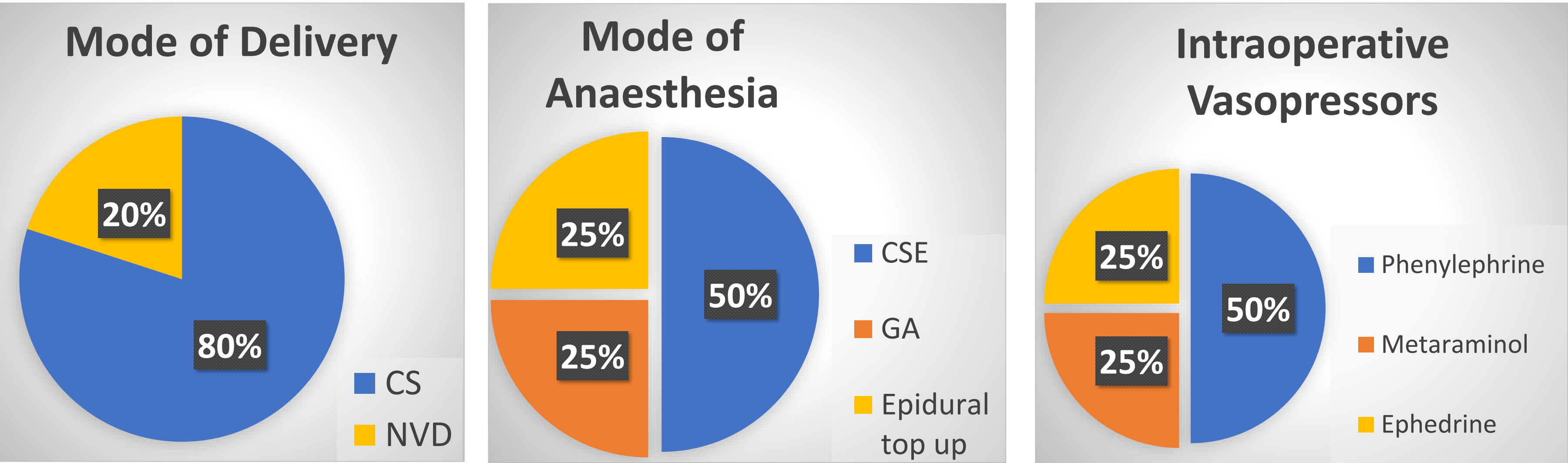
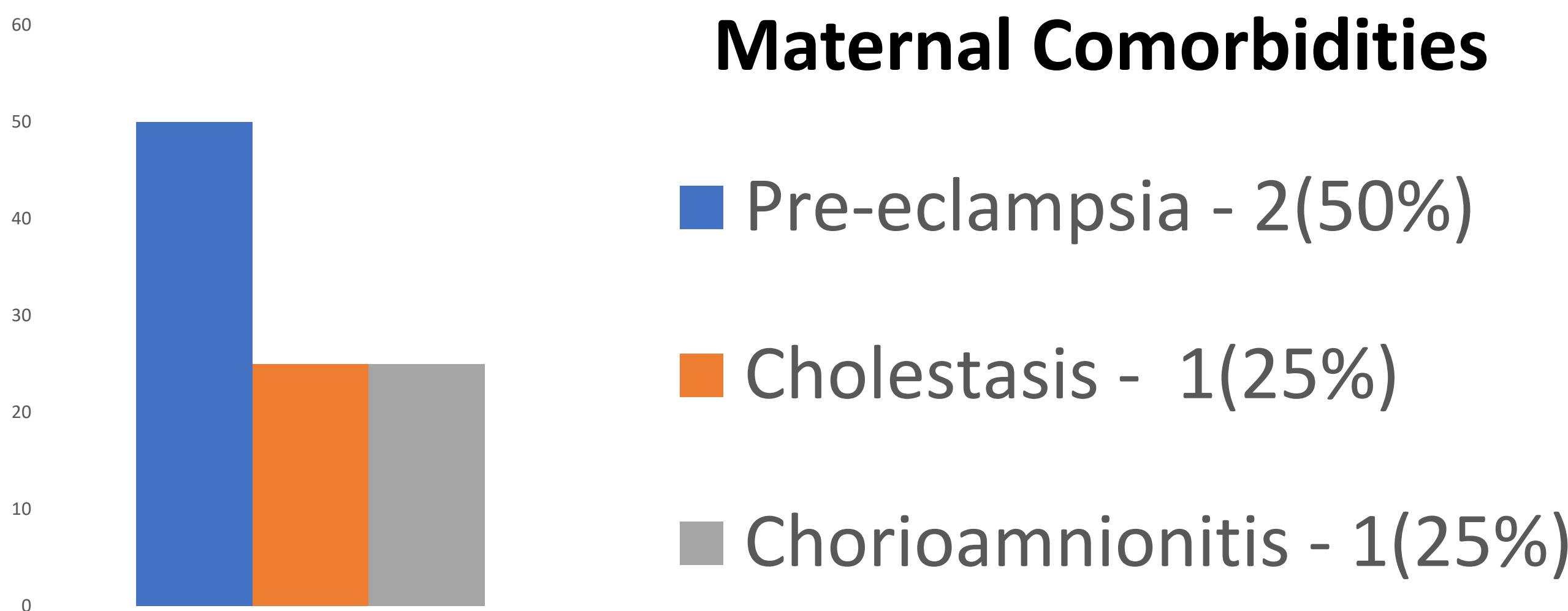
- We reviewed outcomes of five pregnancies in four cardiac transplant recipients managed by the multidisciplinary pregnancy heart team at our tertiary centre between 1st January 2015 – 31st December 2023.
- Characteristics of the women including their demographics, indications for cardiac transplant, mode of delivery, anaesthetic interventions and neonatal outcomes are described.

Results

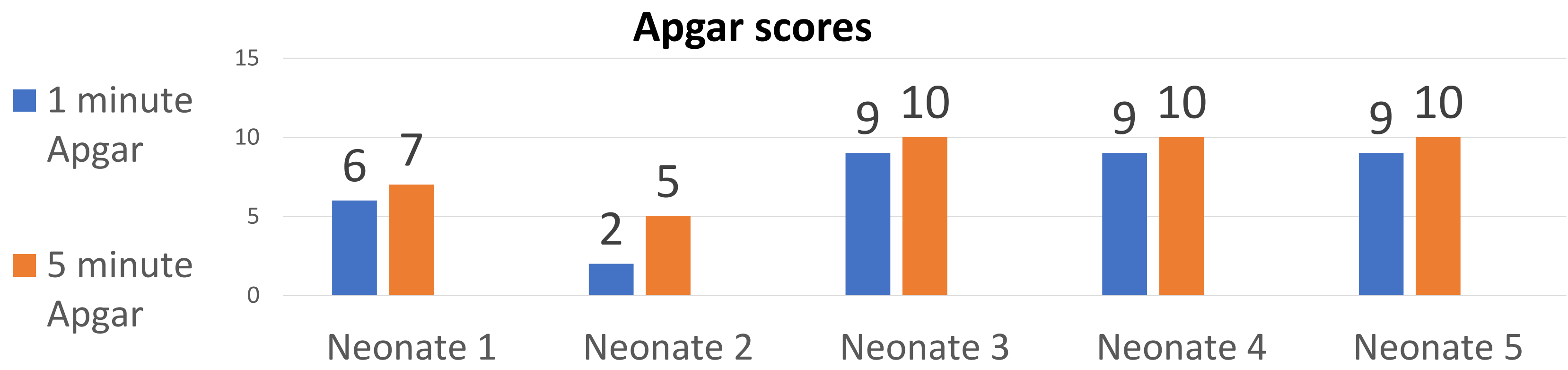
Maternal Demographics	Median [IQR] or n [%]
Age (years)	28 [27.2-28.2]
Body-mass index (BMI - kg/m2)	20.7 [19.3-22.8]
Gestational age at birth (weeks)	34 [32.3-35]
White ethnicity	4 [100%]
Primiparous	3 [75%]



- The median time from transplantation to delivery was 5.3 (IQR 4.3-8.2) years. There was no evidence of graft rejection or deterioration in cardiac function during all five pregnancies.



Maternal and neonatal outcomes	n [%]
Postpartum haemorrhage >500 ml	4 [80%]
High-dependency unit (HDU) admission	3 [60%]
Preterm birth (<37 weeks gestation)	4 [80%]
Neonatal intensive care unit (NICU) admission	3 [60%]



Conclusion

- Our small case series highlights that pregnancy outcomes in heart transplant recipients are favourable but are complicated by a high caesarean and preterm birth.
- Preconception counselling, titration of the immunosuppression and serial surveillance by the multidisciplinary cardio-obstetric team remain key aspects of care in pregnant women with a heart transplant.

References

- Punnoose LR, Coscia LA, Armenti DP, Constantinescu S, Moritz MJ. Pregnancy outcomes in heart transplant recipients. *J Heart Lung Transplant*. 2020; **39**:473-480.
- Acuna S, Zaffar N, Dong S, Ross H, D'Souza R. Pregnancy outcomes in women with cardiothoracic transplants: A Systematic review and meta-analysis. *J Heart Lung Transplant*. 2020; **39**: 93-102.