THROMBOCYTOPENIA IN PREGNANCY

Renee Eslick

Haematology / Obstetric Medicine advanced trainee

National Women's Hospital, Auckland

AUCKLAND DISTRICT HEALTH BOARD
Te Toka Tumai

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THROMBOCYTOPENIA IN PREGNANCY STUDY

- Multisite, prospective observational study
- Observing women referred to a medical service for thrombocytopenia in pregnancy (<150 x 10^9/L) over a six month period at each site
- Collecting demographic information, obstetric and medical comorbidities
- Cause of thrombocytopenia
- Treatments given and platelet response
- Delivery and neonatal outcomes
- Analgesia in labour / anaesthetic for LSCS

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AIMS

- Insight into current practice of Australian and New Zealand haematologists / obstetric physicians
- Frequency and severity of different conditions seen
- Differences in outcomes with different treatment regimens in ITP
- Safety and availability of neuraxial anaesthesia

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PARTICIPATING SITES

- Participating sites – already commenced recruitment
- NSW: Liverpool Hospital, Bankstown Hospital, Royal Hospital for Women, Prince of Wales Hospital, Westmead Hospital

- Ethics approval pending:
- VIC: Royal Women's Hospital, Sunshine Hospital
- NZ: Auckland City Hospital, North Shore Hospital
- WA: Fiona Stanley Hospital

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PRELIMINARY DATA

- 59 patients enrolled across five sites who have already delivered
- 1 twin pregnancy
- Median age 30
- Median parity 2, gravida 1

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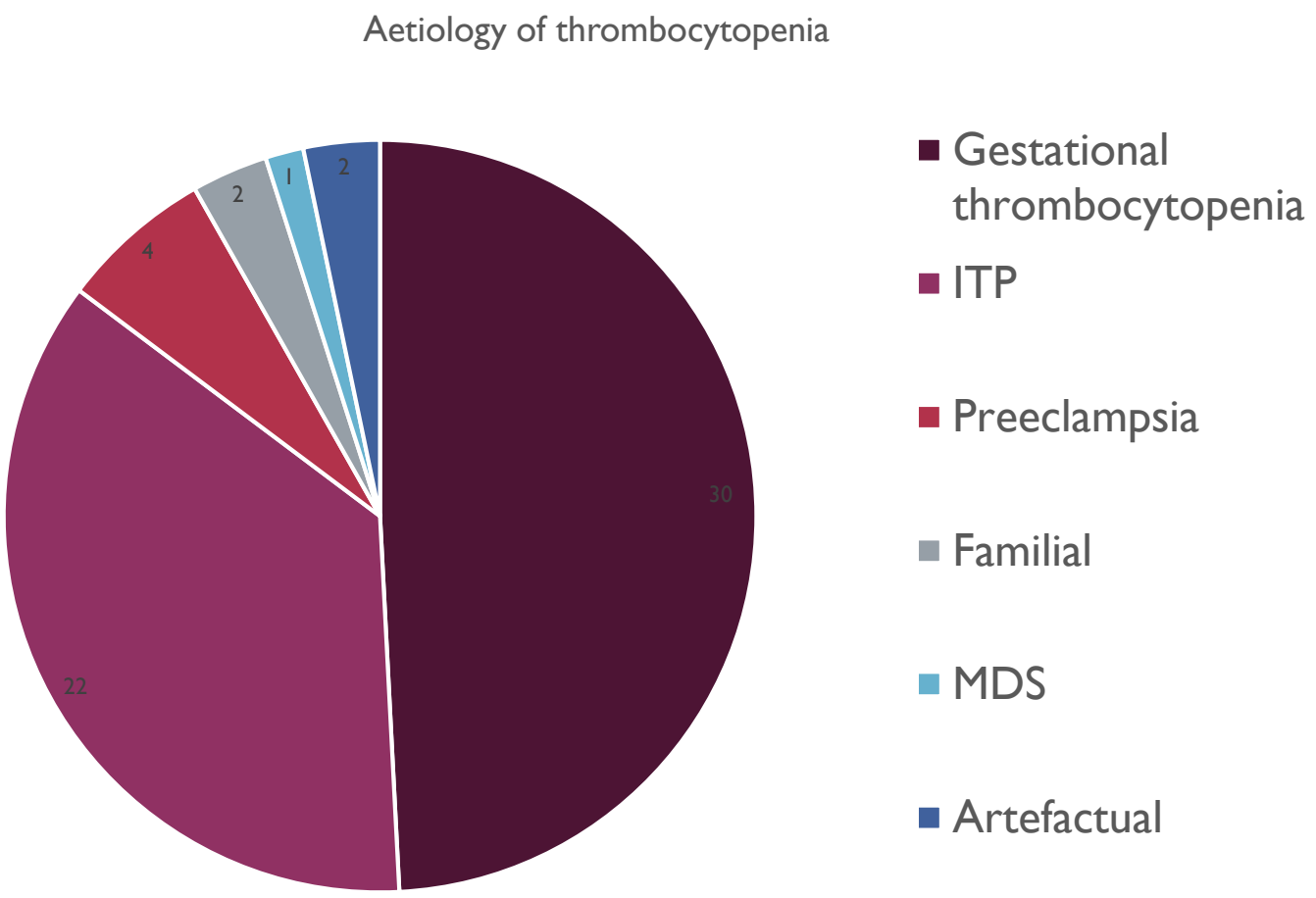
CAUSES OF THROMBOCYTOPENIA



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INTERNATIONALLY REPORTED DATA

- Gestational thrombocytopenia (70-80%)
- Pregnancy-associated thrombocytopenia
  - Preeclampsia (15-20%)
  - HELLP syndrome (<1%)
  - Acute fatty liver of pregnancy (<1%)
- Medical causes
  - Primary ITP (1-4%)
  - Drug-induced (<1%), Type IIB von Willebrand disease (<1%), Congenital thrombocytopenia (<1%)
- Thrombocytopenia associated with systemic disorders (1-2%)

ASH 2013 Clinical Practice Guide on Thrombocytopenia in Pregnancy

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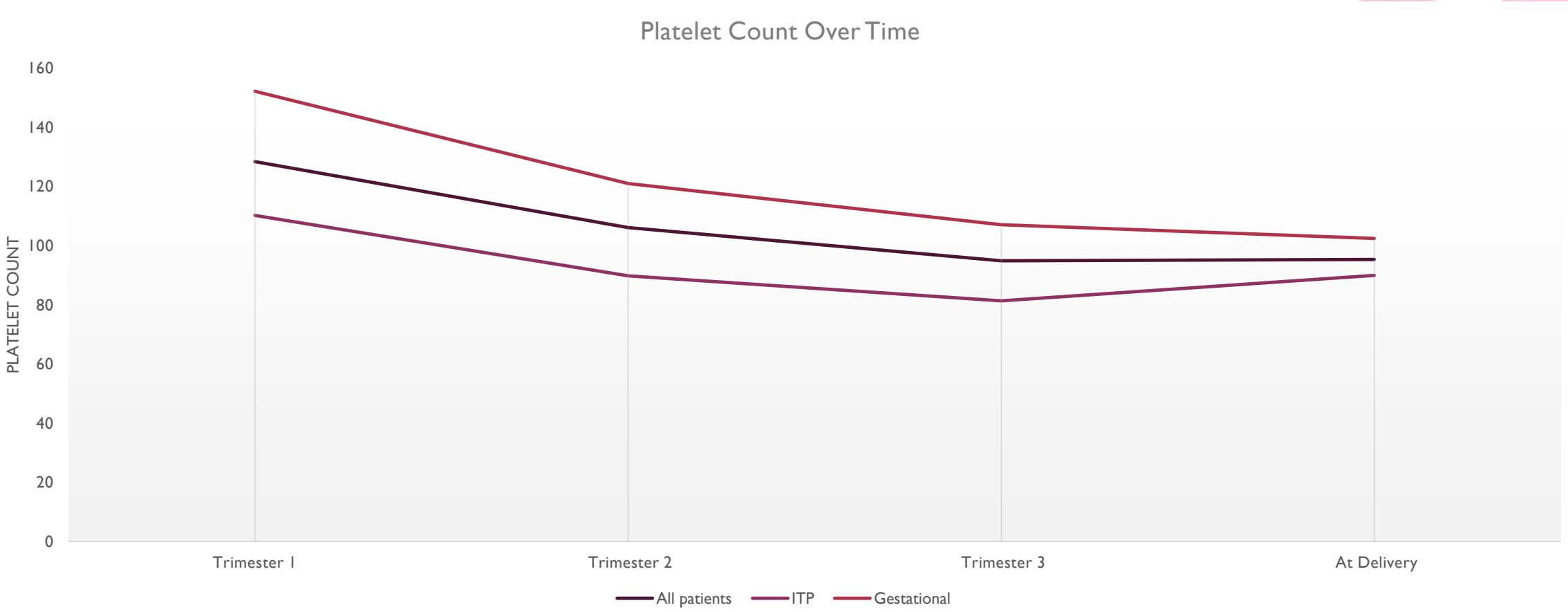
PLATELET COUNT

Timepoint	Gestational thrombocytopenia platelet count	ITP platelet count	p value
Prior to conception	171	116	0.001
12 weeks	152	110	0.005
26-28 weeks	121	90	0.0007
34-36 weeks	107	81	0.0008
Nadir count	91	62	0.0001
Delivery	102	89	0.085
1 week postpartum	120	88	0.004
2-4 months postpartum	164	92	0.002

PLATELET COUNT TRENDS OVER TIME



ITP TREATMENT

Prednisone

- 32% as first line treatment
- Starting dose 10 – 60mg (0.1-1mg/kg)
- 58 → 90 average 7 days

IVIg

- 18% as first line treatment; 36% in total
- 1g/kg for 1-2 days
- 52 → 109 average 3.5 days later

No difference in haemorrhagic or neonatal outcomes between treatments

NEURAXIAL ANAESTHESIA

- 12 women received epidural (20%)
  - 18% of those in ITP group, 23% of those in GT group
  - Mean platelet count 110 (range 76-131)
  - No complications observed

- 7 requested an epidural but did not receive one
  - Four ITP, two familial, one GT
  - Mean platelet count 81 (range 40-112)
  - 5 women (71%) had platelet counts >80

DELIVERY

- 44% were induced; 17% primarily for thrombocytopenia
- Vaginal delivery 66% - 10% instrumental vs 18% national average
- LSCS – elective in 10%, emergency in 24%
  - Mean platelet count 115, range 76-142
- PPH
  - 24%, mean blood loss 794ml
  - Mean 1033ml for ITP (n=6, 27%), 617ml for GT (n=7, 23%)
  - Trend to greater blood loss in ITP cohort (p=0.067)

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NEONATAL OUTCOMES

- No ICH / bleeding events
- 63% ITP babies with platelet counts checked
- Average neonatal platelet count in ITP 214
- 18% ITP babies had neonatal thrombocytopenia, mean count 92
  - 1 required IVIg + platelets for nadir count of 11
- Both babies of mothers with hereditary thrombocytopenia had low platelets, mean cord blood count of 74

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SUMMARY

- Medical causes of thrombocytopenia seen more frequently
- Prednisone and IVIg equally efficacious in ITP
- Anaesthetic consultation important to ensure all eligible women can receive an epidural if they desire
- Increased incidence of PPH in this cohort
- Areas of potential improvement: check cord / neonatal platelet count in ITP

THANKS

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