Congenital Infections in Wales

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Introduction

- Congenitally acquired infections can have serious consequences.

- Infections which have been implicated are Cytomegalovirus, Toxoplasmosis, Parvovirus infection, Rubella, Herpes simplex, Syphilis, Malaria and, most recently, the Zika virus.
CARIS

(Congenital Anomaly Register and Information Service)

- The Welsh Congenital Anomaly Register (CARIS) is a multiple source congenital anomaly reporting register.
- CARIS also records all congenital infections with or without associated congenital malformations.
Methods

- Data from 1\textsuperscript{st} January 1998 to 31\textsuperscript{st} December 2014 (16 years) was reviewed. All outcomes including fetal losses, terminations of pregnancy, still births and live births were included.
- There were 139 reported cases of congenital infection with or without a known congenital anomaly.
- The profile of the 3 most common infections are illustrated.
Results
Distribution of infections

No. of cases

CMV: 54
Parvovirus: 20
Toxoplasmosis: 10
Herpes: 5
Hepatitis: 7
Malaria: 2
Epstein Barr: 1
Coxackie: 1
Listeriosis: 2
Cytomegalovirus (N=54)

- No. of cases:
  - <24 weeks: 5
  - 24-37 weeks: 21
  - >=37 weeks: 27
  - Not known: 1

- Pregnancy outcome:
  - Live births: 77%
  - Stillbirths: 15%
  - Fetal losses: 4%
  - Termination of pregnancy: 4%
Cytomegalovirus

Any anomalies?

- No anomalies
- Anomalies recorded

Type of anomaly:

- Cystic hygroma and/or hydrops: 2%
- Nervous system: 6%
- Eyes: 12%
- Haematological: 4%
- Endocrine/metabolic: 9%
- Cardiovascular: 9%
- Respiratory: 2%
- Gastrointestinal: 2%
- Urinary: 9%
- Musculoskeletal: 2%
- Chromosomal: 52%
Parvovirus (N=26)

No. of cases

Pregnancy outcome

- Live births: 42%
- Fetal losses: 38%
- Stillbirths: 8%
- Termination of pregnancy: 12%

Gest age at end of pregnancy:
- <24 weeks: 13
- 24-37 weeks: 5
- ≥37 weeks: 7
- Not known: 1
Parvovirus

Hydrops was reported in 69% of the cases. Hydrops was the only abnormality in 46% of the cases and in the remainder, there were other additional anomalies.
Toxoplasmosis (N=10)

Pregnancy outcome

- Live births: 90%
- Fetal losses: 10%
Toxoplasmosis

All cases of Toxoplasmosis had associated congenital anomalies
The prevalence rate of congenital infection in Wales was 1.26 per 10,000 total births during the period 1998-2014 (EUROCAT guidelines).

This compares to an overall rate of 0.52 per 10,000 in the EUROCAT registers. (EUROCAT exclude fetal losses < 20 weeks gestation cases and cases with no structural anomalies).

If above exclusions were not applied, the overall prevalence rate for Wales was 2.4 per 10,000 total births for this period.
Conclusions

- Rates of infection in Wales were among the highest in Europe despite known under reporting.

- The three most common congenital infections demonstrate the burden of associated anomalies and mortality.
Dates for diary

- CARIS annual meeting (to include Zika virus update)
  15/11/16 at PCH, Merthyr Tydfil and 24/11/2016 at Ysbyty Glan Clwyd

- Encountered any cases of congenital infection? CARIS would like to know about them.
Thank you