LONG TERM OUTCOMES OF CHILDREN BORN TO MOTHERS WITH SLE EXPOSED TO AZATHIOPRINE IN PREGNANCY

THU0013

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Introduction

•Certain immunosuppressive agents used in pregnancy in SLE to prevent flare, to ensure optimum outcome mother & child

•Little published literature regarding long term outcomes of children

•Previously published small studies have suggested a link between:

- Azathioprine and Increased use of Special Educational Services[1]
- Anti-cardiolipin antibodies & developmental delay[2]
- Hydroxychloroquine +/- prednisolone and a reduction in congenital heart block

Aims

Does exposure to Azathioprine during pregnancy and/or lactation increase the risk of:

1. Congenital anomalies
2. Serious infections
3. Developmental delay

Methods

•Cross sectional, Retrospective study

•A standard questionnaire developed for multi-center study

•Inclusion criteria:

•Children under 17

•Born to women with a pregnancy AFTER fulfillment ≥4 ACR criteria for SLE

Results

200 women, 287 children

AZA during pregnancy &/or Breastfeeding

89children

66 women

NO AZA during pregnancy &/or Breastfeeding

198 children

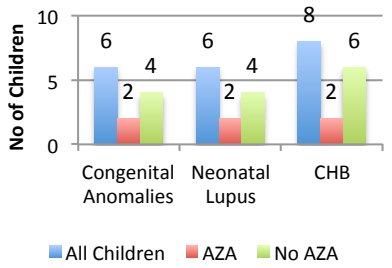
149 women

Maternal Characteristics	All N=287	AZA N=89	No AZA N=198	p value
Ro ± La antibodies	37%	44%	41%	0.55
Lupus anticoagulant and/or Anticardiolipin IgG and/or IgM	43%	60%	49%	0.03
Lupus anticoagulant	32%	43%	34%	0.21
Anticardiolipin IgG and/ or IgM	23%	35%	23%	0.68
Renal dx ever	23%	57%	16%	<0.0001
Hypertension prior to pregnancy	17%	16%	18%	0.85
Pre-eclampsia	10%	11%	8%	0.16

Maternal Demographics	All N=287	AZA n=89	No AZA N=198	p value
Maternal Age, yrs (sd)	32 (±6)	32 (±7)	31(±9)	0.36
Maternal Disease Duration yrs (sd)	7.5 (±6)	6.5 (±5)	8.6 (±8)	0.0078
Maternal steroids	59%	87%	47%	<0.0001
Maternal Hydroxychloroquine	53%	49%	46%	0.69
Maternal Aspirin	70%	83%	66%	0.0051
Maternal Heparin	24%	32%	22%	0.84

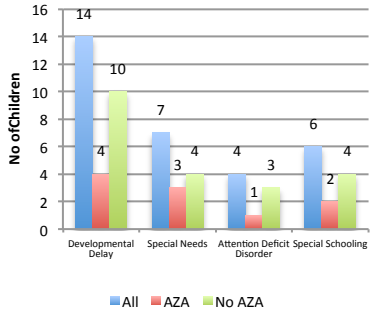
Neonatal Outcomes	All Women N=287	AZA N=89	No AZA N=198
Gestational age at delivery	median=38 range 27-42	median=36 range 27-42	median=38 range 25-42
Birth weight	median=2.88kg range 0.6-4.7	median=2.8kg range 0.6-4.4	median=3.1kg range 0.7-4.7

Obstetric Outcomes



Hospital Visits	All children N= 287	AZA N=89	No AZA N=198	p Value
Outpatient visit	17%	17%	18%	0.89
Outpatient visit related to infection	1.8%	4%	1%	0.33
Hospital admissions	26%	35%	23%	0.07
Infection requiring hospital admission	18%	28%	14%	0.005

Developmental Problems



Statistical Analysis

Multifactor logistic regression used to investigate relationship between maternal AZA use and infection requiring hospital admission

NO longer significantly associated

(OR 1.73(0.85-3.5), p=0.13, when adjusted for:

Maternal renal disease

Maternal prednisolone

However, due to the lower sample size its power was <80%.

Conclusions

Does exposure to AZATHIOPRINE in pregnancy and/or lactation increase congenital anomalies?	•No
Does exposure to AZATHIOPRINE in pregnancy and/or lactation increase the risk of serious infections?	•No •Using multivariate analysis
Does exposure to AZATHIOPRINE in pregnancy and/or lactation increase the risk of developmetal delays?	•No

Summary

This UK cross sectional survey highlights that azathioprine is compatible with pregnancy and should be continued during pregnancy & breast feeding

References

1. Akhtar S et al. Maternal Anticardiolipin Affects Childhood development. Arthritis & Rheumatism. 2008.5 7:9,443
2. Marder Wet al. In utero azathioprine exposure and increased utilization of special educational services in children born to mothers with SLE. Arthritis & Rheumatism. 2012:8:288