

The Obstetric Implications of **Diabetes & Diabesity**

National Obstetrics Registry (NOR)

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BACKGROUND REVIEW

- ▶ Diabetes is highly prevalent in Malaysia

National Obstetrics Registry (NOR)

- ▶ Obesity is a modern epidemic
- ▶ The implications of diabetes and obesity in pregnancy are significant
- ▶ Implications of **diabetes in pregnancy?**

OBJECTIVE

National Obstetrics Registry (NOR)

- ▶ To compare the obstetric implications of diabetes and diabetes

METHODS

- ▶ Cross sectional retrospective cohort study
- ▶ Dataset is from the National Obstetric Registry of Malaysia
(*Fourteen major tertiary hospitals in nationwide*)
- ▶ Three year study period from 1st January 2010 till 31st December 2012

RESULTS

DIABESITY IS COMMON

- ▶ Incidence of diabetes in pregnancy – **4.5%**
- ▶ Most prevalent among **Indians**
- ▶ Most common age group **35-39** years of age

FETAL MACROSOMIA

Condition		Fetal macrosomia					
		Yes		No		Crude OR (95% CI)	P value
		No	%	No	%		
Diabetes	Yes	1,307	3.7	33,743	96.3	3.47 (3.25-3.69)	<0.001
	No	4,024	1.1	360,200	98.9	1.00 (ref)	
Diabesity	Yes	780	6.7	10,867	93.3	6.04 (5.59 -6.53)	<0.001
	No	4,551	1.2	383,076	98.8	1.00 (ref)	

P value based on simple logistic regression , OR Odds Ratio

CAESAREAN SECTION

Condition		Caesarean Section					
		Yes		No		Crude OR (95% CI)	P value
		No	%	No	%		
Diabetes	Yes	12,542	36.2	22,077	63.8	1.90 (1.86-1.95)	<0.001
	No	82,543	23.0	276,599	77.0	1.00 (ref)	
Diabesity	Yes	5,357	46.6	6,146	53.4	2.84 (2.74 -2.95)	<0.001
	No	89,728	23.5	292,530	76.5	1.00 (ref)	

P value based on simple logistic regression , OR Odds Ratio

STILLBIRTH

Condition		Stillbirth					
		Yes		No		Crude OR (95% CI)	P value
		No	%	No	%		
Diabetes	Yes	319	0.9	34,410	99.1	1.17 (1.04-1.31)	0.008
	No	2,836	0.8	357,914	99.2	1.00 (ref)	
Diabetesity	Yes	136	1.2	11,418	98.8	1.50 (1.26 -1.79)	<0.001
	No	3,019	0.8	380,906	99.2	1.00 (ref)	

P value based on simple logistic regression , OR Odds Ratio

PRIMARY PPH

Condition		Primary PPH					
		Yes		No		Crude OR (95% CI)	P value
		No	%	No	%		
Diabetes	Yes	356	1.0	34,694	99.0	2.24 (1.99-2.51)	<0.001
	No	1,663	0.5	362,561	99.5	1.00 (ref)	
Diabesity	Yes	140	1.2	11,507	98.8	2.50 (2.10 -2.97)	<0.001
	No	1,879	0.5	385,748	99.5	1.00 (ref)	

P value based on simple logistic regression , OR Odds Ratio

SHOULDER DYSTOCIA

Condition		Shoulder dystocia					
		Yes		No		Crude OR (95% CI)	P value
		No	%	No	%		
Diabetes	Yes	193	0.6	34,857	99.4	3.56 (3.03-4.20)	<0.001
	No	565	0.2	363,659	99.8	1.00 (ref)	
Diabesity	Yes	74	0.6	11,573	99.4	3.62 (2.84 -4.60)	<0.001
	No	684	0.2	386,943	99.8	1.00 (ref)	

P value based on simple logistic regression , OR Odds Ratio

CONCLUSION

- ▶ Combination of diabetes & obesity has far greater obstetrics complications
- ▶ More prevalent than what is perceived!
- ▶ Risk of fetal macrosomia & caesarean section is extremely significant

STRENGTH OF STUDY

- ▶ Large sample size
- ▶ Adequately powered

LIMITATIONS

- ▶ Retrospective study
- ▶ Based on a single registry

RECOMMENDATIONS

- ▶ Better awareness
- ▶ Urgent need of a aggressive & holistic approach
- ▶ Global Initiative & National Health Policy & Declaration

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**THANK
YOU**

