



Research Article

A RETROSPECTIVE STUDY TO ASSESS THE INCIDENCE OF GESTATIONAL DIABETES AMONG TYPE II DIABETES MELLITUS WOMEN'S WITH A VIEW TO PREPARE THE BOOKLET ON PREVENTION OF DIABETIC RELATED COMPLICATIONS AT MEDICAL OPD AND ANTENATAL OPD, SMVMCH, PUDUCHERRY

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ABSTRACT

Gestational diabetes is a high blood sugar condition that some women get during pregnancy. Usually it goes away after the baby is born, unlike other types of diabetes. Gestational diabetes generally starts when the baby is not able to make use of all the required quantity of insulin needed. Therefore enough insulin is not consumed by the baby resulting in builds up in the blood to higher level. The present study was conducted among the women who was diagnosed as type II diabetes mellitus to assess the incidence of history of gestational diabetes mellitus at SMVMC&H Puducherry. A qualitative research approach with non-experimental retrospective design was selected for this study. The study samples comprises of all women with type II diabetes mellitus attending medicine OPD, at SMVMC & H Puducherry. The incidence of gestational diabetes mellitus were assessed among the womens with type II diabetes mellitus and the related etiological factors were also identified. Therefore the findings of these study revealed the incidence of gestational diabetes mellitus among women with type II diabetes mellitus.

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INTRODUCTION

Gestational diabetes mellitus, comprise a substantial proportion of the overall women population who ultimately develops diabetes. Off springs of women with gestational diabetes mellitus are at an increased risk for obesity and have unexpectedly high prevalence of elevated glucose levels during childhood and adolescence. Both pedigree and intra uterine environmental or hormonal influences are likely to contribute to these abnormalities.

NEED FOR THE STUDY

In United States reported rates of gestational diabetes range from 2% to 10% of pregnancies. Immediately after pregnancy, 5% to 10% of women with gestational diabetes are found to have diabetes usually type 2. Women who have had gestational diabetes have a 35% to 60% chance of developing diabetes in the next 10-20 years.

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IDF (INTERNATIONAL DIABETES FEDERATION), has estimated the total number of people in India with diabetes to be around 50.8 million in 2010, rising to 87.0 million by 2030.

OBJECTIVES

- To assess the incidence of gestational diabetes mellitus among type II diabetic mellitus women.
- To associate the level of incidence of type II diabetic mellitus with selected demographic variables.
- To correlate between the incidence of type II diabetic mellitus and the incidence of gestational diabetes mellitus.
- To prepare and issue the information booklet on prevention of complication related diabetes among the gestational diabetes mellitus mothers.

RESEARCH METHODOLOGY

Qualitative research approach with non-experimental research design was selected for this study.

Table 1. Distribution of women with type II diabetes mellitus according to their demographic variables

SL.NO	DEMOGRAPHIC VARIABLES	N (frequency)	% percentage
1.	AGE: •<30 years •30-40 years •>40 years	3 16 31	6 % 32% 62%
2	RELIGION: •Hindu •Muslim •Christian	37 13 0	74% 26% 0
3.	EDUCATIONAL STATUS •Illiterate •High school •Higher secondary •Graduate	17 20 10 3	34% 40% 20% 6 %
4.	OCCUPATION: •Sedentary •Moderate •Heavy •Not working	0 13 1 36	0 26% 2 % 72%
5.	AREA OF RESIDENCE: •Rural •Urban	30 20	60% 40%
6.	TYPE OF MARRIAGE •Consanguineous •Non-consanguineous	17 33	34% 66%
7.	DIET •Vegetarian •Non-vegetarian	4 46	8 % 92%
8.	MEALS PER DAY •<3 times •3-4 times •>4 times	21 29 0	42% 58% 0
9.	DURATION OF DM •<2 years •2-5 years •>5 years	16 21 13	32% 42% 26%
10.	REGULAR ANTENATAL CHECK UP •Yes •No	34 16	68% 32%
11.	MODE OF DELIVERY •Spontaneous vaginal delivery •Lower segment caesarean section •Instrumental delivery	35 14 1	70% 28% 2 %
12.	FAMILY HISTORY •Yes •No	26 24	52% 48%
13.	PAST HISTORY •Yes •No	6 44	12% 88%

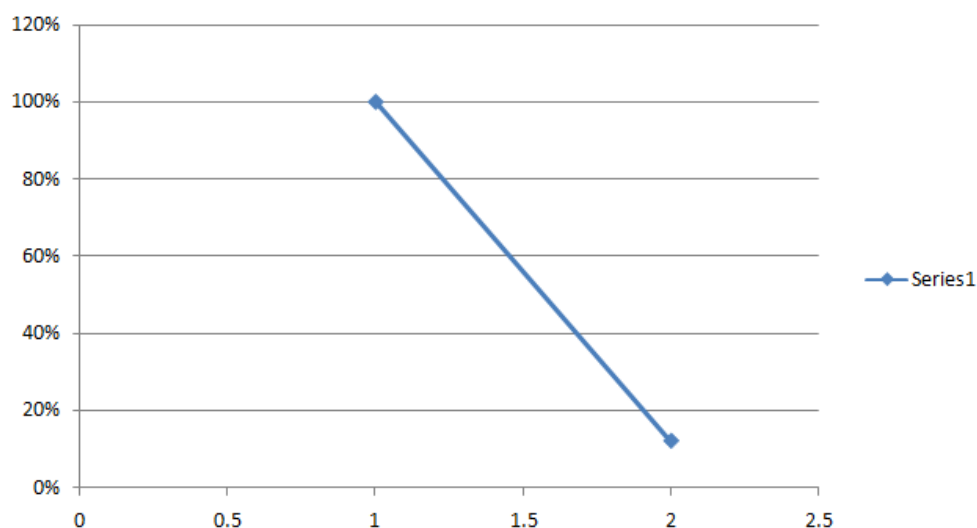


Table 2. Association of the level of incidence of type II diabetic mellitus with selected demographic variables

Sl. No	Demographic variable	Total no. of Patients	Incidence of Type II Diabetes Mellitus Women's		X ² / p-value
			Incidence of Type II DM (n)	Incidence of GDM (n)	
1.	AGE:				X ² =6.114 df=2 p=0.047 S*
	•<30 years	3	2	1	
	•30-40 years	16	12	4	
	•>40 years	31	30	1	
2.	RELIGION:				X ² =0.191 df=1 p=0.662 NS
	•Hindu	37	33	4	
	•Muslim	13	11	2	
	•Christian	0	0	0	
3.	EDUCATIONAL STATUS				X ² =23.568 df=3 p=0.003 S*
	•Illiterate	17	16	1	
	•High school	20	19	1	
	•Higher secondary	10	9	1	
	•Graduate	3	0	3	
4.	OCCUPATION:				X ² =5.889 df=2 p=0.045 S*
	•Sedentary	0	0	0	
	•Moderate	13	9	4	
	•Heavy	1	1	0	
	•Not working	36	34	2	
5.	AREA OF RESIDENCE:				X ² =1.284 df=1 p=0.594 NS
	•Rural	30	27	3	
	•Urban	20	17	3	
6.	TYPE OF MARRIAGE				X ² =1.913 df=1 p=0.339 NS
	•Consanguineous	17	16	1	
	•Non-consanguineous	33	28	5	
7.	DIET				X ² =2.696 df=1 p=0.404 NS
	•Vegetarian	4	3	1	
	•Non-vegetarian	46	41	5	
8.	MEALS PER DAY				X ² =1.796 df=1 p=0.1801 NS
	•<3 times	21	20	1	
	•3-4 times	29	24	5	
	•>4 times	0	0	0	
9.	DURATION OF DM				X ² =1.336 df=2 p=0.845 NS
	•<2 years	16	14	2	
	•2-5 years	21	18	3	
	•>5 years	13	12	1	
10	REGULAR ANTENATAL CHECK UP				X ² =3.209 df=1 p=0.049 S*
	•Yes	34	28	6	
	•No	16	16	0	
11	MODE OF DELIVERY				X ² =17.532 df=2 p=0.0001 S*
	•Spontaneous vaginal delivery	35	35	0	
	•Lower segment caesarean section	14	8	6	
	•Instrumental delivery	1	1	0	
12	FAMILY HISTORY				X ² =6.294 df=1 p=0.012 S
	•Yes	26	20	6	
	•No	24	24	0	
13	PAST HISTORY				X ² =16.310 df=1 p=0.002 S
	•Yes	6	0	6	
	•No	44	44	0	

Table 3: Correlation between the incidence of type II Diabetes Mellitus and the incidence of gestational diabetes mellitus

Total No. of Type II DM Women's	Percentage	Incidence of GDM	Percentage
50	100%	6	12%

The study samples comprises of all women with type II diabetes mellitus who are attending medical OPD at SMVMC&H, Puducherry. The past history of gestational diabetes mellitus was assessed among women with type II diabetes mellitus with the prepared demographic data. The incidence rate were identified among those women.

Inclusion criteria

- Women with type II diabetic mellitus who are attending medicine OPD.
- Women who are willing to participate.
- Women who can able to understand Tamil and English .

Table 4. Overall mean and standard deviation for selected demographic variables

Demographic varibale	Mean	Standard deviation
Age	2.56	.611
Religion	1.26	.443
Education	2.02	.892
Occupation	3.46	.885
Area	1.40	.495
Type of marriage	1.66	.479
Diet	1.92	.274
Meals per day	1.58	.499
Duration of DM	1.94	.767
Regular Antenatal checkup	1.32	.471
Mode of Delivery	1.32	.513
Family history of Diabetes Mellitus	1.48	.505
Past history of Gestational D M	1.88	.328

Exclusion criteria

- Women with type I diabetic mellitus.
- Women who is pregnant.

DESCRIPTION OF TOOL**Part I- Demographic data**

Part II- structured closed ended question related to gestational diabetes mellitus

RESULTS

The study showed that 12% of women with type II diabetes mellitus had a past history of gestational diabetes mellitus. 66.4% of women are in age group of 30-40 years, 66.4% of them are Hindu, 50% of the are living in rural and another half of them are living in urban area. 83% of them married non-consanguineous. 83% of them are non vegetarian. 100% the women with past history of GDM went for regular antenatal check and their mode of delivery was lower segment caesarean section. among 13 demographic variables such as age, religion, educational status, occupation, area of residence, type of marriage, diet, meals per day, duration of diabetes mellitus, regular antenatal check up, mode of delivery family history and past history.

It was statistically found that only age, religion, educational status, occupation, regular antenatal check up, mode of delivery, family history, and past history. It shows that highly significant at $p < 0.002$ level.

Conclusion

Therefore the finding of the study revealed the incidence of gestational diabetes mellitus among the women with type II diabetes mellitus. The study participants gets benefited by participating in this study through the early identification of problems and correct measures to overcome this problems.

REFERENCES

- Basavanthappa BT. Nursing Reaserch. 1ST Ed. New Delhi; Jaypee
- Bauer, D.G. 2005. Review or the endocrine system. MedSurg Nursing, 14(5),335-337.
- Bennett VR, Brown LK. "Myles Text book for midwives". 13th edition Edinburg: Churchill Livingstone publication; 1999
- Brother, 2003. Otoide V.O, Ogbonmwan S.M, Okonofuaf.E. Episiotomy. Department of obstetrics and gynaecology. University of Benin. Nigeria.
- CP Thasyamma. "A guide to mid wifery textbook for students, 2nd edition, Jaypee brothers medical publication: 2003:
- Dutta, D.C. 2001. Textbook of obstetrics. 4th Ed. New central agency(p)Ltd Chintamani Das Lane; Calcutta.
- Fraser, D.M., Cooper, M.A. 2003. "Myles textbook for midwives." 14th edition. Edinburg: Elsevier publication.
- National Institutes of Health. 2003. Endocrine-related resources from the National Institutes of Health. Endocrinology, 144(12), 567-5673.
