PLAN OF RESEARCH

About

Degree of control Diabetics Mellitus in Ramadan months

By

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2005-2006

DEGREE OF CONTROL DIABETICS MELLITUS IN HEALTH CENTERS AND IN MONTH OF RAMADAN

Research by Dr, Somaya Al Jawdar, Dr. Ali Moh'd Mustafa and Dr. Amal Al Thawadi about Degree of control DM.

Diabetics Mellitus communist chronic disease in Gulf region and affect both male and female due to sedentary life, lack of exercises and bad behavior using unhealthy food rich by calories and fats also DM affects people of all faiths: Muslim are no exception most of diabetic Muslim have desire to fast during Ramadan. Unless if have any medical problems prevent patient to fast. Patient in Ramadan tent to request physician before starting fast knowing all the dangers, how to take medicine and glucose monitoring in Ramadan: Degree of control of diabetics mellitus more important to prevent complications and good quality of life to patient. In this research we comparison between fasting blood sugar in month of Ramadan of Muslim diabetic fasting patient and FBS before month of Ramadan to same patient. And also degree of control of DM in five Health centers of Manama City, (Naim,

Shakh Sabah, Ibn- Sina, A.l hoora and Bilad – Al Qadeem health centers) in Ramadan months to all diabetic patient made HBA1C by classification degree of control of DM as normoglycaemia FBS or HB A 1C<6.1mmol/L (110mg/dl), impaired glucose metabolism (border line) >=6.1-<7 mmol/L(126 mg/dl) and uncontrolled DM> =7mmol/L (126 mg/dl)

AIMS:

Comparison between degree of DM control in and before Ramadan and degree of control of DM patient in Health centers

WAYS AND MATERIALS

In Bilad Al Khadeem and Hoora Health centers by used questioner to register all Muslim diabetic fasting patient made fasting blood sugar by laboratory technical employee in Ramadan month from 4/10- 2/11/2005 also fasting blood sugar before Ramadan obtain from computer, 232 cases collected and agreement from patient to involve in research also information and data collected about patient made HBA 1C form HID (Health Information Department of Ministry of Health after take Agreement) and data collection, analysis and statistic by used SPSS program

RESULT

in this research about 232 cases Muslim fasting diabetic take reading of fasting blood sugar in and before Ramadan, Bahraini 198 cases Non Bahraini 34 cases only in Hoora Health center also Nationality show in table 1A,B Also sex female more than male show in table2, age groups classification show in table3, Degree of control show in table4, table5 show degree of control in relation to nationality to sex table6, and HBA1C in relation to nationality, health centers, and degree of control show in table7A,B,C.

Nationality

	N	Percent
Bahraini	85	71.4
Non Bahraini	34	28.6
Total	119	100.0

Table1A Show Nationality in Hoora Health center.

28.57%
NonBahraini

71.43%
Bahraini
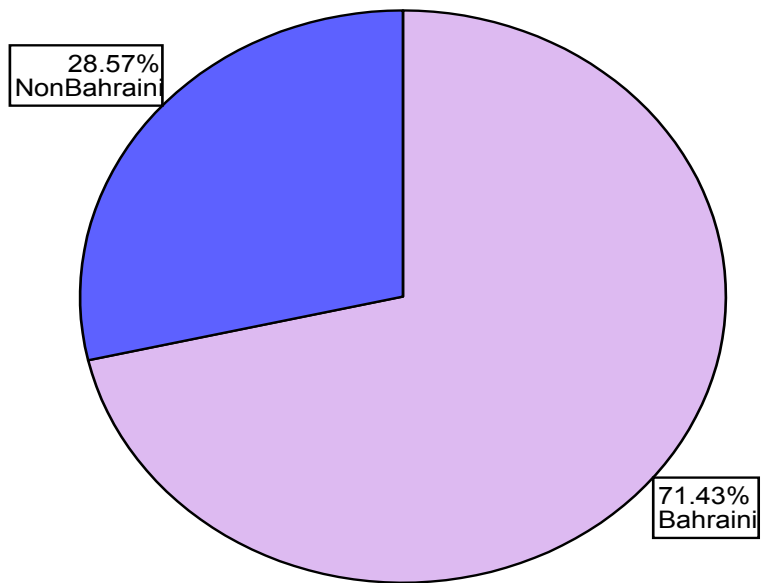
Graph 1 Show Nationality
Nationality

	N	Percent
Bahraini	198	85.35
Non Bahraini	34	14.65
Total	232	100.0

Table1B Show Nationality in all cases.

Sex

	N	Percent
Male	101	44.3
Female	127	55.7
Total	228	100.0

Table 2 Show Sex

44.3%
Male

55.7%
Female
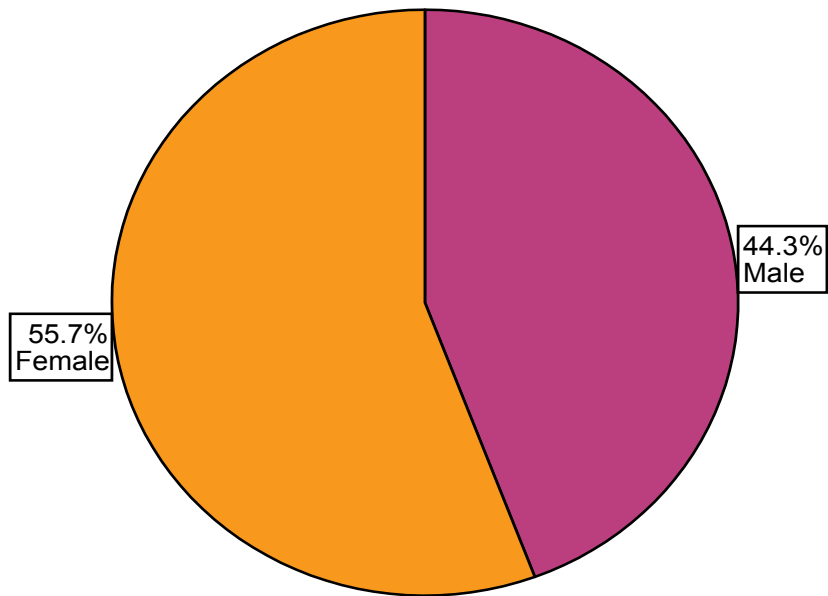
Graph 2 Show Sex

Table 3 Show age group   **age group**

	N	Percent
<30	8	3.5
30 - 39	27	11.8
40 - 49	69	30.1
50 - 59	51	22.3
60 - 69	51	22.3
70 - 79	17	7.4
80+	6	2.6
Total	229	100.0

Age group1

	N	Percent
<40	35	15.3
40 - 59	120	52.4
60 - 79	68	29.7
80+	6	2.6
Total	229	100.0

riptive StatisticsDesc

	N	Minimum	Maximum	Mean	Std. Deviation
age	229	19	86	52.36	13.214
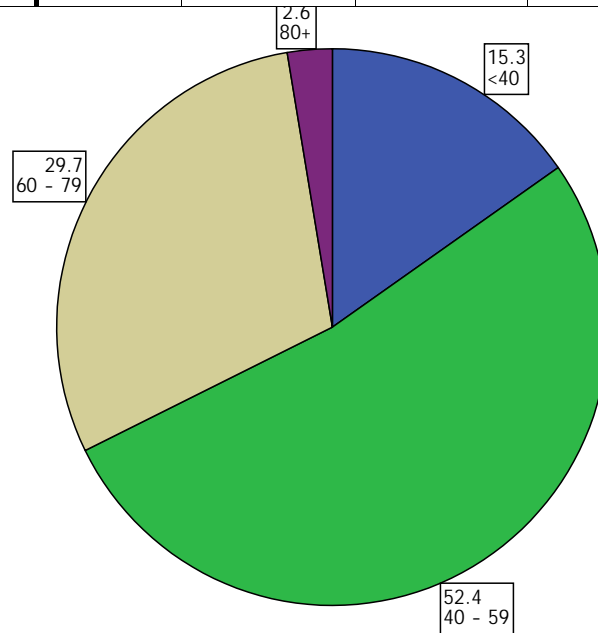
Pearson Correlation

	InRamad an	BeforeRam adan	InRamadan - BeforeRam adan	age
InRamadan	1	.705**	.465**	.119
BeforeRamadan	.705**	1	-.299**	.102
InRamadan - BeforeRamadan	.465**	-.299**	1	-.012
age	.119	.102	-.012	1

Correlation is significant at the 0.01 level (2-tailed).

	Before R		In R	
	N	Percent	N	Percent
Normal	35	15.8	53	22.8
Borderline	26	11.8	27	11.6
Uncontrolled	160	72.4	152	65.5
Total	221	100.0	232	100.0

Table 4 Show Degree of control
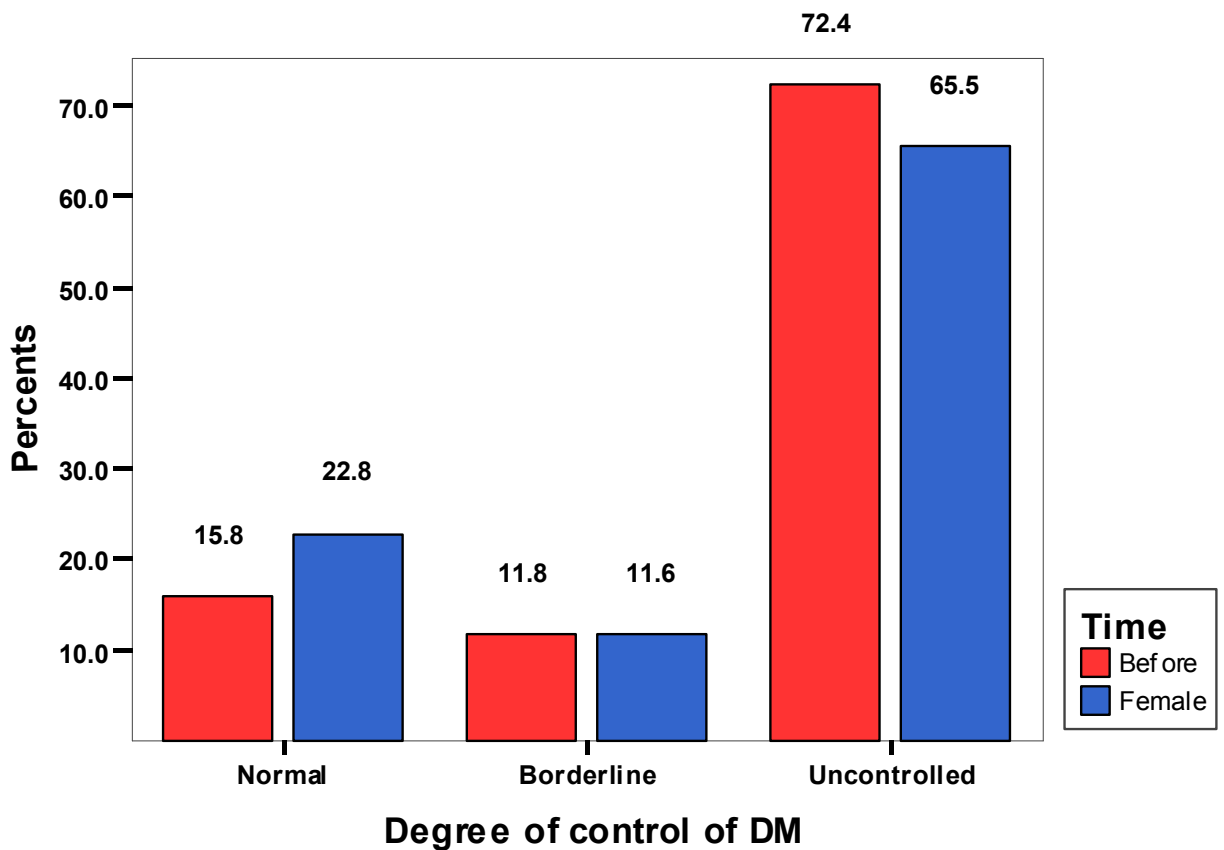
Table 5 Show Degree of control DM in Relation to Nationality and Sex

| | | Nationality | | | | Sex | | | |
| | | Bahraini | | Non Bahraini | | Male | | Female | |
		N	%	N	%	N	%	N	%
InR	Normal	15	17.6	6	17.6	24	23.8	27	21.3
	Borderline	13	15.3	4	11.8	10	9.9	17	13.4
	Uncontrolled	57	67.1	24	70.6	67	66.3	83	65.4
	Total	85	100.0	34	100.0	101	100.0	127	100.0
Before R	Normal	9	11.3	2	6.1	15	15.6	20	16.4
	Borderline	10	12.5	3	9.1	8	8.3	18	14.8
	Uncontrolled	61	76.3	28	84.8	73	76.0	84	68.9
	Total	80	100.0	33	100.0	96	100.0	122	100.0

Pearson Chi-Square Tests

		Nationality	Sex
InR	Chi-square	.256	.743
	df	2	2
	Sig.	.880	.690
Before R	Chi-square	1.102	2.262
	df	2	2
	Sig.	.576(a)	.323

InR Crosstabulation *BeforeR

| | | | InR | | | |
			Normal	Borderline	Uncontroled	Total
Before R	Normal	Count	27	4	4	35
		of Total	12.2	1.8	1.8	15.8
	Borderline	Count	6	7	13	26
		of Total	2.7	3.2	5.9	11.8
	Uncontrolled	Count	11	15	134	160
		of Total	5.0	6.8	60.6	72.4
	Total	Count	44	26	151	221
		of Total	19.9	11.8	68.3	100.0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	100.659 (a)	4	.000

HBA1C

Nationality

	No.	%
Bahrain	67	48.3%
Non Bahrain	69	50.7%
Total	13.6	100%

Table7A Show Nationality of cases HBA1C

Health Centers

	No.	%
Hoora	42	30.9
Ibn	40	29.4
Sh.SB	25	18.4
Bilad	24	17.6
Naim	5	3.7
Total	136	100

Table7B Show No. of patient in every health centers

	No.	%
Normal	11	8.1
Border line	23	16.9
Un Control	102	75

Table7C Show Degree of control by used HBA1C

DISCUSSION

From the result we can comparison between degree of control of diabetes mellitus patient in and before Ramadan of Muslim fasting patient used pricking of fingers No. of cases 232 Bahraini 198 cases (85.35%), Non Bahraini 34 cases (14.65%) but only Non Bahraini in Hoora health center (28.57%) in relation to patient in Hoora 119 cases, Male cases 101(44.3%) Female cases 127(55.7%) According to age groups <40 years 35 cases (15.3%), 40.59 years 120 cases(52.4%), 60.79 years 68 cases (29.7%) and 80+ years 6cases (2.6%) The maximum age 86 years and minimum 19 years. The correlation between fasting blood sugar in and before Ramadan are increase degree of control but not significant Before Ramadan normal case 35 (15.8%), Borderline case 26 (11.8%) and Uncontrolled 160%) Total case 221, but in Ramadan normal case 53 (22.8%), Borderline cases 27 (11.65%) and Uncontrolled case 152 (65.5%) Total cases 232.

The second part of research about 136 cases made HBA1C in month of Ramadan 2005 in 5 health centers in Manama city to show degree of control of diabetic by another methods of in

investigation the Bahraini cases 67 (49.3%), Non Bahrain 69 cases (50.7%) and five health centers cases Hoora 42cases (30.9%), Ibn – Sina 40 case (29.4%), Sh.SB. 25cases (18.4%) Bilad Al Khadeem 24case (17.6%) and Naim Health center 5 cases (3.7%).

Degree of control According to HBA1C Normal 11 cases (8.1%), Borderline 23 cases (16.9%) and uncontrolled 102 cases (75%) finally the correlation According to Nationality not significant

CONCLUSION

DM control in Ramadan more than before Ramadan but not significant, Uncontrolled DM in Ramadan 65%, before Ramadan 72% by using of fasting blood sugar but 75% by using HBA1C, uncontrolled patient it is more lead to complication, must be Re arrangement of diabetic clinic, diabetic patient treatment and diabetic patient flow and registration of all patient, rationalization of investigation and register all investigation made in the laboratory computerized.

RECOMMENDATION

❖ Educational program for diabetics during Ramadan

- Diabetic home management, Preparing them for Ramadan, Recognizing warning symptom for the hydration, hypoglycemia and other possible complication, home glucose monitoring, urine for acetone, doing daily weight, calories controlled diabetic diet, need for sleep, normal exercises, pulse, temperature, skin infection, change sensation (mental alert) and special alert for any colicky pan, Renal pan, hyperventilation and not weight for medical advice.

❖ Critical criteria for allowing Diabetic to fast during Ramadan

- Every diabetic patient must be visit doctor before fasting in Ramadan

❖ Percent uncontrolled diabetic more must be planning to decrease the percent of uncontrolled patient.

❖ Doctors and diabetic clinic registration all diabetic patient in register book and computerized for initial visit and follow up visit and every patient has special family doctor

❖ follow up with them, every doctor have number of patient when absent integrate with another doctor, uncontrolled patient take appointment for follow up visit make all effort to become control, more health education, more consultant time not less than 10-15 minute, referral of resistant case for specialist, monthly report about diabetic clinic show No. of Initial visit, No. of follow up visit, No. of control, No. of uncontrolled, No. of referral of specialist for complicated case and make audit until percent of control become good.

❖ Diabetic patient.

- more health education, exercise, food regulation, regular check, decrease weight if obese, not stop medicine and must be take in time, follow up with same doctor check for complication, regular investigation and medical advise for any problems.

About laboratory investigation in 2005 more than 250.000 investigation made dot ask about investigation unless necessary and must be show last time of any investigation to decide to make or not and must be registration all investigation made computerized.

LITERATURE REVIEW

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