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The Analysis of the Prevalence of Diabetes in the Third Age in a Northeast State Between the Years From 2002 To 2013

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ABSTRACT

Diabetes potentiates when the body can not control the amount of glucose (sugar) in the blood. This disease develops when the body does not produce enough amounts of the hormone called insulin. The elderly are more fragile in not producing adequate insulin for their proper functioning, since the prevalence is related to aging, sedentary lifestyle and obesity, and these last two factors, in turn, intensify with the advancing age. The decompensated glycemia accentuates frequent difficulties in this phase of life. It can incapacitate the elderly because it increases the risk of dementias such as Alzheimer's, in addition to diabetic neuropathy, which causes the elderly to lose firmness on the floor, the use of many medications and other problems that impact the quality of life and increase the risk of death.

Keywords: Diabetes mellitus, Elderly care, Patients

Introduction

Diabetes is a chronic disease, due to the lack or inability of insulin to adequately fulfill its effects, thus occurring an increase in glycemic levels. This disease occurs when the pancreas is unable to produce the hormone insulin in an amount sufficient to meet the needs of the body, or when it is not able to act in its correct way thus occurring insulin resistance. This hormone promotes a decrease in glycemic levels, which favors the sugars present in the cells to reuse this hormone. Causing the lack of this hormone or not acting correctly, there is an increase in blood glucose, hence diabetes. (Ministry of Health, 2006)

This disease can be divided into three types I, II and LADA where II is the most typical in the elderly, is used to designate a relative insulin deficiency. Insulin administration in these cases, when performed, is not intended to prevent ketoacidosis, but to achieve control of the hyperglycemic condition. Ketoacidosis is rare and, when present, is accompanied by infection or very severe stress. Metabolic syndrome is responsible for the higher morbidity and mortality due to cardiovascular diseases in both obese and type 2 diabetics (Araújo, Brito and Cruz, 2006).

Diabetes increases its prevalence with age, especially in individuals over 70 years of age. This occurs due to predisposition to insulin resistance with reduced pancreas function. We live in one state, where we have a large rate of the elderly population with diabetes, and according to DataSus data, females shoot in front of men with 1500 cases of diabetes while males with 847 cases.

Aiming to report the prevalence of cases of Diabetes in elderly patients in the state of Alagoas and as a guiding question. What are the factors that affect diabetes in the elderly?

Methodology

It is an integrative review of the literature, which sought to evidence and discuss the prevalence of diabetes in the elderly in a northeastern state.

For the accomplishment of this work the method of integrative revision of literature was adopted. Where this method includes analysis and synthesis of research in a systematized way, contributing to the deepening of the researched subject, helping in decision making, as well as improving clinical practice, based on pre-existing research results.

To describe the profile of diabetics in the studied state, data from the Department of Informatics of the SUS (DataSUS) of the Ministry of Health (MS), available in the Information System of Hiperdia (SISHiperdia), were used, referring to the sociodemographic profile of the population served in the Hiperdia program in the studied state. Such information had a time cut from 2002 to 2013, considering that all enrolled in the Hiperdia program are users, both spontaneous and programmed demand. The Hiperdia program is a strategy that allows registering and accompanying patients with diabetes mellitus, captured and linked to health units or Basic Care (AB) teams of the Unified Health System (SUS), generating information for professionals and managers of municipal secretariats , state and ministry of health, knowledge of the profile, analysis and follow-up of these diseases in their respective contexts (BRAZIL, 2013).

The ethical aspects that involve research with human beings have been preserved, not requiring the approval of the Research Ethics Committee, since it is a study developed with secondary data from a national and public access database.

To prepare this integrative review, all the recommended phases were covered: first phase: elaboration of the guiding question; second phase: search or sampling in the literature; third phase: data collection; fourth phase: critical analysis of included studies; fifth phase: discussion and interpretation of the results and sixth phase: presentation of the integrative review. The guiding question for the elaboration of the integrative review was: What are the factors that affect diabetes in the elderly?

For the survey of the articles, the descriptors in Health Sciences (Decs) were used: Diabetes mellitus, Health care of the elderly, Patients. They were selected and combined according to the database.

To search the articles, the Internet was used to access the databases: The bibliographic survey was performed in the virtual health library in the database, characterized as Latin American Literature in Health Sciences (LILACS), Database (BDENF) and Scientifc Eletronic Library Online (SCIELO). Articles published in the Portuguese language of Brazil were selected from 2002 to 2018, with abstracts and full texts available.

The keywords that were related to the theme were selected and verified in the databases if these were Health Sciences Descriptors (DECS) controlled according to the indexation in each specific database. For the survey of the articles, the descriptors in Health Sciences (Decs) were used: Nursing, Surgical Center and Patient. They were selected and combined according to the database.

The search was performed from April to May 2018. Using the descriptors, 1,436 articles were found, 7 in the MEDLINE database, 740 in SCIELO and 689 in BDENF. Six articles were found in the two databases consulted. Articles that did not meet the inclusion criteria were excluded. After selecting the articles included, a careful reading of the abstracts of each article was carried out, during which articles that did not respond to the guiding question were excluded. Thus, the sample consisted of 16 articles. The search was performed through online access to the databases.

For the sample of the selected studies in the integrative review, the inclusion criteria were established: published scientific articles available between the years of 2002 to 2018, in the databases mentioned. As exclusion criteria, articles that were not related to the topic. A total of 09 articles were selected for the study sample.

SUMMARY TABLE OF THE SEARCH STRATEGY

| ESTRATÉGIA | BASE DE DADOS | ENCONTRADOS | QUANTITY OF ARTICLES THAT REMAIN AFTER READING | | |
			TÍTULOS	RESUMOS	ÍNTEGRA
Assistência de enfermagem "AND" pacientes com diabetes	SCIELO	12	7	5	4
	LILACS	10	5	3	1
	BDENF	20	5	5	2
Cuidado de enfermagem "AND" pacientes idosos com diabetes	SCIELO	4	2	2	2
	LILACS	3	2	1	1
	BDENF				0
Enfermagem "AND" pacientes idosos com diabetes	SCIELO	11	2	2	1
	LILACS	6	2	1	1
	BDENF	4	1	1	1
Total		70	26	20	12

Results and Discussions

We analyzed 13 articles that met the inclusion criteria previously established. Of the articles selected, 03 were found in the LILACS database, 07 in SCIELO and 03 in BDENF. The publication date ranged from 2012 to 2018, with 2012 the year of more publications. The articles researched included literature review and integrative literature review.

A cross-sectional study in which female and male individuals with diabetes were enrolled from 2002 to 2013, with the age group of 60 to 74 years old, where 2,347 cases occurred, being female in type 1 diabetes; 309, with type 2; 191, male with type 1 diabetes; 172 and type 2; 675. Among those cited, there is a relevance in the female sex, to which they have a higher adherence to routine exams. These data were collected in the state of Alagoas, by the IT department of SUS, Department of Informatics of the Unified Health System (DATASUS).

Table 1.1

Ano	Diabetes tipo 1	Diabetes tipo 2	Mulher	Homem	Total
2002	106	429	370	165	535
2003	30	122	108	44	152
2004	9	51	36	24	60
2005	44	139	117	66	183
2006	16	91	60	47	107
2007	22	114	86	50	136
2008	49	165	144	70	214
2009	59	219	176	102	278
2010	48	196	152	92	244
2011	39	186	143	97	240
2012	26	142	96	85	181
2013	5	12	12	5	17
Total de casos tipo 1 na mulher	309				
Total de casos tipo 2 na mulher	1.191				
Total de casos tipo 1 no homem	172				
Total de casos tipo 2 no homem	675				
Total de casos	2.347				

Source: Ministry of Health - System for Registration and Monitoring of Diabetics. 2002 to 2013.

The mentioned table shows that in the total of registered individuals, the diabetic amount in the respective years.

In 2002, 535 cases of diabetes were registered in the elderly between 60 and 74 years, where 106 have type I diabetes mellitus and 429 have type II diabetes mellitus, of which 370 are women and 165 are men.

In the year 2003, 152 cases of diabetes were registered in the elderly between 60 and 74 years, where 30 have type I diabetes mellitus

and 122 have type II diabetes mellitus, of which 108 are women and 44 are men.

In 2004, 60 cases of diabetes were registered in the elderly between 60 and 74 years, where 09 have type I diabetes mellitus and 51 have type II diabetes mellitus, of which 36 are women and 24 are men.

In 2005, 183 cases of diabetes were registered in the elderly between 60 and 74 years, where 44 have type I diabetes mellitus and 139 have type II diabetes mellitus, of which 117 are women and 66 are men.

In 2006, 107 cases of diabetes were registered in the elderly between 60 and 74 years old, 16 of whom had type I diabetes mellitus and 91 had type II diabetes mellitus, of which 60 were women and 47 were men.

In 2007, 136 cases of diabetes were registered in the elderly between 60 and 74 years, where 86 have diabetes mellitus type I and 50 have diabetes mellitus type II, among them, 117 are women and 66 are men.

In the year 2008, 214 cases of diabetes were registered in the elderly between 60 and 74 years, where 49 have diabetes mellitus type I and 165 have diabetes mellitus type II, of which 144 are women and 70 are men.

In 2009, 278 cases of diabetes were registered in the elderly between 60 and 74 years old, where 59 have type I diabetes mellitus and 219 have type II diabetes mellitus, of which 176 are women and 102 are men.

In 2010, 244 cases of diabetes were registered in the elderly between 60 and 74 years old, where 48 have type I diabetes mellitus and 196 have type II diabetes mellitus. Of these, 152 are women and 92 are men.

In 2011, 240 cases of diabetes were registered in the elderly between 60 and 74 years, where 39 have type I diabetes mellitus and 186 have type II diabetes mellitus, of which 143 are women and 97 are men.

In the year 2012, 181 cases of diabetes were registered in the elderly between 60 and 74 years, where 26 have type I diabetes mellitus

and 142 have type II diabetes mellitus, of which 96 are women and 85 are men.

Diabetes increases its prevalence with age, especially in individuals over 70 years of age. This occurs due to predisposition to insulin resistance with reduced pancreas function .. We live in a state where we have a large rate of the elderly population with diabetes, and according to data from the DataSus, females shoot in front of men with 1500 cases of diabetes while males with 847 cases. It is understood that the cases affected by Diabetes Mellitus occurred more in the elderly of the female sex since the elderly of the masculine sex has a greater resistance to go to the health unit to carry out examinations for the same.

The results obtained in this study were higher than those observed for diabetes in the elderly in studies performed with elderly population in another Brazilian city, such as Fortaleza (15.4%). (Home study of the elderly population of Fortaleza / CE: methodological aspects and socio-demographic characteristics)

Conclusion

The elderly patient is subjected to exactly the same complications of diabetes as the younger patient, with one important difference: the risk of cardiac and vascular complications is much greater, as age is an aggravating factor. And this is already a good reason for differentiated care. With this population aging, several diseases related to age are highlighted as diabetes, because it is something related to the patient's lifestyle, which, being not changeable, will cause several diseases related to it, such as; diabetic retinopathy and renal failure.

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