Profile of Hypertensive Patients Indicated to Surgical Procedures in The Oral Cavity

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Abstract: *Objective:* The present study aimed to evaluate the profile of hypertensive patients, indicated surgical procedures in the oral cavity.

Methods: Treated an observational and cross-sectional research, with a quantitative approach, whose sample consisted of 50 medical records of patients diagnosed with arterial hypertension. A survey was conducted at the Clinical School of the University Center of Patos - UNIFIP / PB. Data collection was performed by a single examiner. The information was distributed on the form prepared for this purpose. The data were computed using the SPSS software for Windows, v. 22, and analyzed by descriptive statistics that use as frequencies, media and standard deviations.

Results: The average age of the patients was 48 years. The majority of the sample was composed of women (58%); by white patients (40%); non-smoking patients (52%) and ex-alcoholics (36%). As for diseases associated with hypertension, diabetes was more prevalent (18%), being also the most frequent among the variations associated with family history (20%). The drug most used by patients was Losartana (34%); and the local dental anesthetic, a 2% Mepivacaine associated with Epinephrine 1,100.00 (56%). Most patients were seen in the morning shift (58%).

Conclusions: It was concluded that white non-smoking women and ex-alcoholics were more prevalent among hypertensive patients, with diabetes being a disease more associated with arterial hypertension.

Keywords: Hypertension, Oral surgical procedures, Dental clinics.

INTRODUCTION

Cardiovascular Diseases are one of the biggest causes of death in the world. They were responsible for more than 17 million deaths in 2008, of which three million occurred before the age of 60, and a large part could have been avoided. The World Health Organization estimates that in 2030 almost 23.6 million people will die from cardiovascular diseases [1].

Among cardiovascular diseases, systemic arterial hypertension (SAH) is an important risk factor for cardiac and cerebrovascular complications [1], being considered a public health problem worldwide. In 2000, the prevalence of SAH in the world population was 25% and the estimate for the year 2025 is 29% [2]. Studies carried out in Brazil revealed that the prevalence of hypertension varied between 22.3 and 43.9%, with an average of 32.5% [3, 4].

In Brazil, the prevalence of hypertension and associated risk factors has been evaluated since the late 1970s, with wide variation among different studies. This disparity probably results from the lack of standardization of the methodology and selection criteria of the individuals analyzed [5-8]. Another possible factor is the great heterogeneity between different regions of the country, with developed and developing areas coexisting. Furthermore, available studies have not fully analyzed the various factors involved in the genesis of hypertension, especially the association between blood pressure, urinary sodium excretion and renal dysfunction [9].

Systemic arterial hypertension is a disease of multifactorial origin, silent and of slow evolution that can result in a medical emergency due to the possible psychosomatic changes that may occur during dental care, being one of the most common systemic diseases that affect individuals [10].

About 20% of the adult population that attends dental clinics is hypertensive. The measurement of blood pressure must be within the classification of sustained SAH, that is, just one measurement does not authorize any professional to make the diagnosis, since BP varies 24 hours a day, being generally lower during periods of sleep, with peaks ascent in the late morning and mid-afternoon [11].

Thus, the Dental Surgeon can play an important role in early diagnosis, as well as identifying those patients who may be subject to greater risks. Emergencies can occur with any individual, during and

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after any procedure, and the dentist must be able to resolve them [12, 13].

The assessment of the patient's general condition and preventive measures increase safety during the care of hypertensive patients. From an early diagnosis, simple preventive measures, such as changing lifestyle habits and implementing a healthier diet, can contribute to increasing life expectancy and reducing mortality, and would prevent or delay the use of drug therapy in many patients [14].

Thus, the objective of this study was to evaluate the profile of hypertensive patients indicated for surgical procedures at the UNIFIP- University Center of Patos – Paraíba, Brazil.

METHOD

The present study followed the precepts of Bioethics (Resolutions 466/12 and 512/16), and was submitted for approval by the Ethics Committee in Research with Human Beings of the University Center of Patos, UNIFIP/PB, under protocol number: 2.003.747.

This was an observational, cross-sectional, retrospective and quantitative study, which was carried out from direct observation, through 50 medical records of patients between 13 and 84 years old, attended at the Minor Oral Surgery Clinic of the University Center of Patos - UNIFIP /PB. Only medical records filled out correctly and containing the signatures of patients and/or guardians were included.

Data collection was carried out by a single examiner, guided and duly trained by the researcher in charge, according to the parameters that characterize the studied variables, and the data were tabulated in a specific form for this purpose (Figure **1**).

The following variables were studied to characterize the sample: age, sex and skin color. In addition, we studied: medications used to treat high blood pressure; diseases associated with hypertension and family history (diabetes, cardiovascular, liver and respiratory diseases); anesthetics used for surgical interventions; deleterious habits of smoking and alcoholism; and service shift.

After data collection, descriptive statistical analysis was performed. Absolute and percentage frequencies were calculated for categorical variables. Data were tabulated using the SPSS for Windows software, v. 22,

Figure 1: Form for data collection.

Data Collection Form

Date of Birth: _____/_____/_____ **Age:** _____

Gender: Female ( ) Male ( )

Skin Color: White ( ) Brown ( ) Black ( )

Do you use medication for hypertension?

( ) Yes, which one: _____

( ) No

Is there any other type of associated disease?

( ) Yes No

If yes, which one:

( ) Diabetes

( ) Cardiovascular disease

( ) Liver disease

( ) Kidney disease

( ) Respiratory disease

( ) Cardiovascular and Renal Diseases

( ) Cardiovascular and Respiratory Diseases

Associated deleterious habits?

( ) Smoke ( ) Present ( ) Alcohol ( ) Present

( ) Past ( ) Past

( ) Never ( ) Never

Illnesses related to family history:

( ) Diabetes

( ) Hypertension

( ) Cardiovascular disease

( ) Diabetes and Hypertension

( ) Hypertension and Cardiovascular Disease

( ) Diabetes and Cardiovascular Disease

Anesthetic used: _____

Service shift: ( ) Morning ( ) Evening

Source: Brazil, 2022.

Table 1: Sample Distribution According to Age

Variable	Average	Standard Deviation	Minimum	Maximum
Age	48,08	17,09	13	84

Source: Research Data [n=50] (Brazil, 2022).

and analyzed by descriptive statistics using frequencies, means and standard deviations. The results were distributed in tables.

RESULTS

The following tables describe the results found for the sample studied in this research, according to frequency (F) and percentage (%).

Table **1** describes the sample distribution according to age. The average was 48.08 years, with a standard deviation of 17.09.

Table **2** shows the sample values for males and females. The highest frequency was women, with 58%.

Table 2: Distribution of the Sample According to Gender

VARIABLE		F	%
Sex	**Masculine**	21	42,0
	Feminine	29	58,0

Source: Research Data [n=50] (Brazil, 2022).

Table **3** expresses the characterization of the sample in relation to skin color. The majority declared themselves white (40%), with the brown color also quite reported (38%).

Table 3: Sample Distribution According to Skin Color

VARIABLE		F	%
Skin Color	**White**	20	40,0
	Brown	19	38,0
	Black	11	22,0

Source: Research Data [n=50] (Brazil, 2022).

Table **4** describes the distribution of the sample in relation to the drugs used to treat high blood pressure. The most prescribed were Losartan (34%) and Atenolol (18%). The least used drugs were: Somlagin Cardio, Hydrochlorothiazide and Amlodipine Besylate, all with a percentage of 2%.

Table 4: Distribution of the Sample According to the Drugs Used

MEDICINES	F	%
Losartan	17	34,0
Solmagin Cardio	1	2,0
Atenolol	9	18,0
Hydrochlorothiazide	1	2,0
Captropil	7	14,0
Amlodipine besylate	1	2,0
Naprix	2	4,0
Propanolol	5	10,0
Furosemide	4	8,0
Enalopril	3	6,0

Source: Research Data [n=50] (Brazil, 2022).

Table **5** describes the sample regarding the distribution of diseases associated with arterial hypertension. The highest frequency occurred for diabetes, corresponding to 18% of the sample.

Table 5: Sample Distribution According to Associated Diseases

VARIABLES	F	%
Diabetes	9	18,0
Cardiovascular disease	5	10,0
Liver Disease	1	2,0
Kidney Disease	2	4,0
Respiratory Disease	5	10,0
Diabetes and Liver Disease	1	2,0
Cardiovascular Diseases and Kidney Diseases	1	2,0
Cardiovascular Diseases and Respiratory Diseases	1	2,0

Source: Research Data [n=50] (Brazil, 2022).

Table **6** describes the sample according to the presence of harmful habits of smoking and alcoholism. Alcoholism was the most prevalent, with 34%. However, most of the sample reported having abandoned this habit (36%) and 30% said they had never practiced it. Regarding smoking, 26% reported

having abandoned the habit and 52% never used cigarettes.

Table 6: Sample Distribution According to Smoking and Alcoholism Habits

DELETERIOUS HABITS		F	%
Smoke	Current	11	22,0
	Past	13	26,0
	Never	26	52,0
Alcohol	Current	17	34,0
	Past	18	36,0
	Never	15	30,0

Source: Research Data [n=50] (Brazil, 2022).

Table **7** expresses the distribution of the sample according to illnesses related to family history. The highest frequencies were for diabetes (20%) and arterial hypertension (18%).

Table 7: Sample Distribution According to Illnesses Related to Family History

FAMILY HISTORY	F	%
Diabetes	10	20,0
Hypertension	9	18,0
Cardiovascular diseases	5	10,0
Diabetes and Hypertension	5	10,0
Hypertension and Cardiovascular Diseases	2	4,0
Diabetes and Cardiovascular Diseases	4	8,0

Source: Research Data [n=50] (Brazil, 2022).

Table **8** describes the distribution of the sample according to the anesthetic substances most used during dental procedures. The highest use was Mepivacaine 2% with Epinephrine 1:100,000 (56%). The least used drug was Benzocaine (4%).

Table 8: Sample Distribution According to the Anesthetic Salts used

ANESTHETICS	F	%
Articaine 4% with Epinephrine 1:100,000	4	8,0
Lidocaine 2% with Epinephrine 1:100,000	13	26,0
Mepivacaine 2% with Epinephrine 1:100,000	28	56,0
Prilocaine 3% with Felypressin 0.03	4	6,0
Benzocaine 2%	2	4,0

Source: Research Data [n=50] (Brazil, 2022).

Table **9** expresses the sample distribution according to the dental care shift. Most patients received care in the morning shift (58%).

Table 9: Sample Distribution According to Service Shift

VARIABLE		F	%
Turno	Manhã	29	58,0
	Noite	21	42,0

Source: Research Data [n=50] (Brazil, 2022).

DISCUSSION

In Brazil there are about 17 million people with SAH, 35% of which correspond to the population over forty years old. Thus, health strategies have been developed, aimed at prevention, diagnosis and treatment [15]. These patients deserve a special look from dentists who will face hypertensive individuals on a daily basis, being essential all the necessary knowledge to treat them in the most prudent and scientific way possible.

Most of the studied sample was female, similar to some studies reported in the literature [16,17,18,19,20], where the female population was the most frequent. These studies emphasize that there is a higher rate of hypertensive women due to a greater perception of the diseases and the fact that they have a greater tendency towards self-care, seeking health services more frequently, compared to men [21].

Another study related to the Arterial Hypertension Guidelines revealed that, even though the overall prevalence of SAH is slightly higher among men, gender cannot be considered a risk factor for this disease [22]. Some authors [23] reported a higher prevalence of arterial hypertension among men, data that disagree with the present study.

According to skin color, in the present study, people who declared themselves white were more predominant. These data disagree with studies in the literature [24] that report that the impact of hypertension is not uniform among different ethnic groups, being more prevalent and severe for black people. There is evidence about greater susceptibility to SAH in blacks than in whites [25].

Data obtained in the present study indicated that Losartan was the drug most used by hypertensive patients, followed by Atenolol and Captropil. These data corroborate Lemes and collaborators [20], who

reported Losartan as the most sold drug for the pharmacological treatment of hypertension, followed by Captopril. However, other authors [26, 27] stated that the most used antihypertensive drugs were Hydrochlorothiazide, Losartan and Captopril [28].

With regard to systemic diseases associated with hypertension, diabetes was the most frequent. Authors point out [29] that diabetes and hypertension are commonly associated conditions. Other studies [30] identified that, among individuals with diabetes, 50% were also hypertensive. According to Olavo *et al*. [31] diabetes is one of the main diseases associated with SAH, with obesity as a causal link. Patients with diabetes had a prevalence of 66.9% of SAH, showing that being diabetic (type 1 or 2) is closely correlated with blood pressure [5]. Another study [30] showed that individuals with diabetes have an almost three-fold increased chance of developing SAH than non-diabetics.

In the present study, it was observed that non-smokers were the most frequent patients, corroborating reports by Weissheimer [32] and disagreeing with other authors [30, 33, 34], who reported that former smokers had a higher prevalence of hypertension. As for the use of tobacco, studies indicate that the current or former smoking habit increases the chance of arterial hypertension by 36% [35].

With regard to alcohol consumption, most of the sample claimed to have practiced this habit in the past. This data differs from some studies [36, 37] where most individuals reported current alcohol consumption or past consumption of this drug. Alcohol is identified as a risk factor that contributes to the worsening of arterial hypertension, since the increase in the levels of this substance in the blood raises the pressure slowly and progressively. Reducing this consumption is one of the main measures aimed at non-drug treatment of hypertension [22, 23].

In most studies [14, 15] that discuss arterial hypertension and dentistry, the use of local anesthetics is the main focus [23]. The use of vasoconstrictors in anesthetic solutions causes a delay in the absorption of the anesthetic at the injected site [38]. On the other hand, the use of local anesthetics with vasoconstrictors in patients with hypertension induces an increase in blood pressure, therefore, there is a medical restriction on its use [39]. However, the absence of the vasoconstrictor reduces the duration of action of the anesthetic salt and increases the possibility of pain [33].

In compensated hypertensive patients, there is no contraindication to the use of anesthetics with adrenergic vasoconstrictors, with preference given to Epinephrine (concentration of 1:100,000) associated with Prilocaine. It is noteworthy that the amount administered per session is limited to one to three tubes (1.8 to 5.4 mL) [39]. In the present study, it was revealed that students have been using appropriate anesthetics in clinical practice with hypertensive patients. The anesthetic salts most used during surgical procedures were Mepivacaine 2% associated with Epinephrine 1:100,000 56%, followed by Lidocaine 2% with Epinephrine 1:100,000 26%.

No reports were found in the literature on illnesses related to the family history of participants in studies similar to the present research, highlighting the importance of this study. According to our research, 20% of hypertensive patients had a family history of diabetes and 18% had a family history of hypertension.

Regarding the period of the day to be used for the treatment of patients with heart disease and hypertension, appointments should preferably be scheduled in the morning, as blood pressure is lower at that time, and it is also possible to choose to schedule the patient in the morning. time when he is less stressed, knowing that stress increases the presence of adrenaline by 20 to 40 times and, consequently, can cause a hypertensive peak [38]. The data found in the present research corroborate the findings in the literature on the preference for the service shift, with the morning period being the most frequent.

The limitations found in this study were the lack of studies with the same profile for data comparison, as well as the incomplete filling of information in the medical records, such as: blood pressure measurement, family history, service shift, anesthetic used, among others. Thus, the analysis of the results was carried out by comparing them with what is proposed in the literature. Methodological differences can make comparisons biased and/or unreliable, for example, different ways and different cutoff points to define hypertension, variations in the target population, racial, cultural and socioeconomic variations of populations.

Finally, based on the results obtained, the rate of hypertensive people undergoing dental surgical procedures at the Clínica Escola do Centro Universitário de Patos – UNIFIP/PB, is high, which does not differ from what has been found in other studies [22-24]. In addition, such findings reinforce the

need for further studies regarding hypertensive patients, as this is a reality in the clinical routine of undergraduate students and dentists.

CONCLUSIONS

It was concluded that non-smoking white women and former alcoholics were more frequent among hypertensive patients, with diabetes being the disease most associated with arterial hypertension. In addition, the importance of a careful anamnesis is emphasized in order to previously detect the presence of systemic alterations and thus define the best treatment for the patient, being indispensable the integration of medical and dental care in the service, thus, complications can be avoided.

REFERENCES

[1] World Health Organization (WHO). Global Atlas on Cardiovascular Disease Prevention and Control. Mendis S, Puska P, Norrving B editors. Geneva: World Health Organization; 2011.

[2] Talaei M, Sadeghi M, Mohammadifard N, Shokouh P, Oveisgharan S, Sarrafzadegan N. Incident hypertension and its predictors: the Isfahan Cohort Study. J Hyertension. 2014; 32(1): 30-8. https://doi.org/10.1097/HJH.0b013e32836591d4

[3] Cesarino CB, Cipullo JP, Martin JFV, Ciorlia LA, Godoy MRP, Cordeiro JA, et al. Prevalência e fatores sociodemográficos em hipertensos de São José do Rio Preto. Arq Bras Cardiol 2008; 91(1): 31-5. https://doi.org/10.1590/S0066-782X2008001300005

[4] Rosário TM, Scala LCNS, França GVA, Pereira MRG, Jardim PCBV. Prevalência, controle e tratamento da hipertensão arterial sistêmica em Nobres, MT. Arq Bras Cardiol 2009; 93(6): 672-8. https://doi.org/10.1590/S0066-782X2009001200018

[5] Freitas OC, Carvalho FR, Neves JM, Veludo PK, Parreira RS, Gonçalves RM, Lima SA, Bestetti RB. Prevalência da Hipertensão Arterial Sistêmica na População Urbana de Catanduva, SP. Arq Bras Cardiol, 2001; 77(1): 9-15. https://doi.org/10.1590/S0066-782X2001000700002

[6] Gus I, Harzheim E, Zaslavsky C, Medina C, Gus M. Prevalence, awareness, and control of systemic arterial hypertension in the state of Rio Grande do Sul. Arq Bras Cardiol. 2004; 83: 429-33. https://doi.org/10.1590/S0066-782X2004001700009

[7] Souza ARA, Costa A, Nakamura D, Mocheti LN, Filho PRS, Ovando LA. A study on systemic arterial hypertension in Campo Grande, MS, Brazil. Arq Bras Cardiol 2007; 88: 441-6. https://doi.org/10.1590/S0066-782X2007000400013

[8] Castro RAA, Moncau JEC, Marcopito LF. Prevalência de hipertensão arterial sistêmica na Cidade de Formiga, MG. Arquivos Brasileiros de Cardiologia, São Paulo, v.88, n.3, p.334-9, 2007. https://doi.org/10.1590/S0066-782X2007000300013

[9] Cipullo JP, Martin JFV, Ciorlia LAS, Godoy MRP, Cação JC, Loureiro AAC, Cesarino CB, Carvalho AC, Cordeiro JA, Burdmann EA.Prevalência e Fatores de Risco para Hipertensão em uma População Urbana Brasileira. Faculdade de Medicina de São José do Rio Preto/SP (FAMERP), São Paulo, SP - Brasil, 2009. https://doi.org/10.1590/S0066-782X2010005000014

[10] 34. Gillespie CD, Hurvitz KA, and the Centers for Disease Control and Prevention (CDC). Prevalence of hypertension and controlled hypertension – United States, 2007–2010. MMWR Surveill Summ. 2013 November; 62 (Suppl 3): 144-8. http://www.cdc.gov/mmwr/preview/mmwrhtml/su6203a24.htm . PMid: 24264505

[11] Lipp MM. Stress, hipertensão arterial e qualidade de vida: Um guia de tratamento para o hipertenso. 2. ed. São Paulo: ABDR, 1999.

[12] Fernández-Feijoo J, Núñez-Orjales JL, Limeres-Posse J, Pérez-Serrano E, Tomás-Carmona I. Screening for hypertension in a primary care dental clinic. Med Oral Patol Oral Cir Bucal. 2010 May; 15(3): e467-72. PMid: 20038907 https://doi.org/10.4317/medoral.15.e467

[13] Hogan J, Radhakrishnanhnan J. The assessment and importance of hypertension in the dental setting. Dent Clin North Am 2012; 56(4): 731-45. PMid: 23017548 https://doi.org/10.1016/j.cden.2012.07.003

[14] Sociedade Brasileira de Cardiologia / Sociedade Brasileira de Hipertensão / Sociedade Brasileira de Nefrologia. VI Diretrizes Brasileiras de Hipertensão. Arq Bras Cardiol 2010, 1-51. [Citado em 2011 set 2011. Disponível: http://publicacoes. cardiol.br/consenso/2010/Diretriz_hipertensao_associados.pdf.

[15] Ministério da Saúde. Caderno de Atenção Básica-Hipertensão Arterial. n. 15. 2006. 58p. Disponível em: http://189.28.128.100/dab/docs/publicacoes/cadernos_ab/abcad15.pdf. Acesso em: 1 maio 2010.)

[16] Jesus ES, Augusto MAO, Gusmão J, Mion Júnior D, Ortega K, Pierin AMG. Perfil de um grupo de hipertensos: aspectos biossociais, conhecimentos e adesão ao tratamento. Acta Paul Enferm 2008; 21(1): 59-65. https://doi.org/10.1590/S0103-21002008000100009

[17] Cotta RMM, Batista KCS, Reis RS, Souza GA, Dias G, Castro FAF, Alfenas RCG. Perfil sociossanitário e estilo de vida de hipertensos e/ou diabéticos, usuários do Programa de Saúde da Família no município de Teixeiras, MG. Ciênc Saúde Coletiva. 2009; 14(4): 1251-60. https://doi.org/10.1590/S1413-81232009000400031

[18] Romero AD, Silva MJ, Silva ARV, Freitas RWJF, Damasceno MMC. Características de uma população de idosos hipertensos atendida numa unidade de saúde da família. Rev. Rene. Fortaleza 2010; 11(2): 72-78, abr./jun. https://doi.org/10.15253/2175-6783.2010000200008

[19] Nascimento EM, Santos MF, Martins VM, Cavalcanti AL, Menezes VA, Granville-Garcia AF. Abordagem odontológica de pacientes com hipertensão - um estudo de intervenção. RFO, Passo Fundo, v.16, n.1, p.30-35, jan/abri, 2011.

[20] Lemes EO, Pinto IB, Silva JR, Vargem DS. Avaliação do Perfil e Forma de Tratamento da Hipertensão Arterial em Pacientes de uma Cidade do Estado de Goiás. Ensaios Cienc, Cienc. Biol. Agrar. Saúde 2015; 19(1): 16-20.

[21] Contiero AP, Pozati MPS, Challouts RI, Carreira L, Marcon SS. Idoso com hipertensão arterial: dificuldades de acompanhamento na Estratégia Saúde da Família. Rev Gaúcha Enferm 2009; 30(1): 62-70.

[22] Sociedade Brasileira de Hipertensão, Sociedade Brasileira de Cardiologia, Sociedade Brasileira de Nefrologia. 5ª. Diretrizes Brasileiras de Hipertensão Arterial. São Paulo; 2006.

[23] Organização Mundial de Saúde. Envelhecimento ativo: uma política de saúde. Brasília: Organização Pan-Americana da Saúde; 2005.

[24] 1. Cooper TM, Lange KW. Office management of urgent care patients. In: Falace DA. Emergency dental care - Diagnosis and management of urgent dental problems. Baltimore: Willians & Wilkins; 1995. p. 360-72.

[25] Lopes AA. Revisão/Atualização em Hipertensão Arterial: Influência de fatores étnicos e raciais na hipertensão arterial. J Bras Nefrol. 1999; 21(2): 82-4.

[26] Rollason V, Vogt N. Reduction of polypharmacy in the elderly: a systematic review of the role of the pharmacist. Drugs Aging. 2003; 20(11): 817-832. https://doi.org/10.2165/00002512-200320110-00003

[27] Linarelli MCB, Massarotto AC, Andrade AMGMC, Joaquim AP, Meyer LGC, Guimarães L, Santiago MC, Felippe MB, Lage R. Linarelli MCB. Análise do uso racional de medicamentos anti-hipertensivos utilizados em hospital-escola. Rev. Ciênc. Méd. 2009; 18(4): 193-200.

[28] Salim MAA, Cançado RP, Carvalho BM, Zampirolli FA, Cabral AM, Moreira TG. Identificação da hipertensão arterial sistêmica e fatores de risco em pacientes atendidos nas clínicas de Cirurgia Bucomaxilofacial da Faculdade de Odontologia da Faesa (ES). Rev. bras. Odontol., Rio de Janeiro, v.68, n.1, p. 39-43, jan/jun. 2011. Simões.

[29] Freitas LRS, Garcia LP. Evolução da prevalênciado diabetes e deste associado à hipertensão arterial no Brasil: análise da Pesquisa Nacional por Amostra de Domicílios, 1998, 2003 e 2008. Epidemiol Serv Saúde. 2012; 21(1): 7-19. https://doi.org/10.5123/S1679-49742012000100002

[30] Radovanovic CAT, Santos LA, Carvalho MAB, Marcon SS. Hipertensão arterial e outros fatores de risco associados às doenças cardiovasculares em adultos. Rev. Latino-Am. Enfermagem jul.-ago. 2014; 22(4): 547-53.

[31] Oliveira A, Simone J, Ribeiro R. Pacientes hipertensos e a anestesia na Odontologia: devemos usar anestésicos locais associados ou não com vasoconstritores? HU Revista, Juiz de for a 2010; 36(1): 6975.

[32] Weissheimer FL. Incidência de Hipertensão Arterial em uma Capital Brasileira: Estudo de Base Populacional. 2011. 119 f. Dissertação (Mestre em Saúde Coletiva) - Instituto de Saúde Coletiva, Universidade Federal De Mato Grosso, Cuiabá-MT, 2001.

[33] Costa ANF, Vasconcelos RG, Vasconcelos MG, Queiroz LMG, Barboza CAG. Conduta Odontológica em Pacientes Hipertensos. Revista Brasileira de Ciências da Saúde 2013; 7(3): 287-292. https://doi.org/10.4034/RBCS.2013.17.03.12

[34] Nascente FMN, Jardim PCBV, Peixoto MRG, Monego ET, Barroso WKS, Moreira HG, Vitorino PVO, Scala LN. Hipertensão arterial e sua associação com índices antropométricos em adultos de uma cidade de pequeno porte do interior do brasil. Rev Assoc Med Bras 2009; 55(6): 55(6): 716-22. https://doi.org/10.1590/S0104-42302009000600017

[35] Oliveira SMJV, Santos JLF, Lebrão ML, Duarte YAO, Pierin AMG. Hipertensão arterial referida em mu¬lheres idosas: prevalência e fatores associados. Texto & Contexto Enferm 2008; 17(2): 241-9. https://doi.org/10.1590/S0104-07072008000200004

[36] Carvalho, I. M. M. Avaliação sócio-odontológica de 300 pessoas de Bauru - SP. 2000. Tese (Doutorado) - Faculdade de Odontologia, Universidade de São Paulo, Bauru, 2000.

[37] Freitas EV, Py L, Cançado FAX, Gorzoni ML, Doll J. Tratado de geriatria e gerontologia. 2nd ed. Rio de Janeiro (RJ): Guanabara Koogan; 2006.

[38] Taveira LF, Pierin AMG. Can the socioeconomic level influence the characteristics of a group of hypertensive patients? Rev Latino-am Enferm 2007; 15(5): 929-35. https://doi.org/10.1590/S0104-11692007000500008

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