

Complicated High Blood Pressure in Hospital Area in Lomé

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Abstract

The target of the study was to identify patients living with Compound high blood pressure and describe the epidemiological, treatment and progressive aspects. We had realized retrospective and descriptive study completed throughout twelve months from 1st January to December 31, 2011. The study took into account 250 hypertensives known or not admitted in the cardiology and medical intensive care units at the Sylvanus Olympio Teaching Hospital in Lomé. In total, the frequency of complications of the High Blood Pressure was 33.3% with a male predominance. Patients' average age was 52.4 years. The most frequent reasons of admission were coma (32%) and hypertensive eruption (28%). The excessive consumption of salt and alcohol were other dominant modifiable risks factors with respectively 36.8% and 22.8%. Neurologic complications were the most frequent of cerebrovascular accidents (CVA) (66%) among which strokes represented 69.7%. Cardiac complications came in second position (31.2%). Double treatment was optional in 62.2% cases with IEC+ Ica++ associated. In 56.6% cases patients with renal disease in terminal stage had been dialysed. The level of total lethality was 34%. The main cause of death was CVA (cerebrovascular accidents) (85.9%). High Blood Pressure is then a very plague with regard to its complications. Its effective caretaking is nothing but through primary prevention based on sensitization, education of the entire grass-roots and it requires the mobilization of all social components.

Keywords

High Blood Pressure, Target Organs, Complications, Young Patient

1. Introduction

High Blood pressure is defined as the permanent raising of blood pressure supe-

rior or equal to 140 mmHg for the systolic and or superior or equal to 90 mmHg for systolic [1]. Worldwide, and particularly in developing countries, it is a real public health issue [1] [2] [3]. High Blood pressure affects the whole young population range of 60 years of age and this prevalence increases while getting to 50% of age with patient of 50 years [4] [5]. Its progress is often speckled with complications of the target organs namely the heart, kidneys, the brain and the eye with unbearable socioeconomic consequences [4] [5]. The appearance of one of its complication is a serious stage in the life of the patient of High Blood pressure followed by the deterioration of life quality and the increasing of care-taking costs. In order to prevent and/or delay its complications' appearance, this study was carried out and targeted to describe the profile of compound High Blood pressure with adults in Togo.

2. Material and Method

It was a prospective transversal and descriptive study over twelve months, from 1st January to December 31, 2011. It took place in the cardiology and medical intensive care unit of Sylvanus Olympio Teaching Hospital in Lomé. Included in our study were all Black people, Togolese, of 18 years and over being High Blood pressure patient known or not admitted in both units for a blood pressure superior or equal to 140/90 mmHg and presenting at least one complication (Cerebral, cardiac, renal, ocular) confirmed by a para-clinical check-up. Were excluded, persons who don't agree to be included. The data were obtained on a data collection sheet. Parameters studied were: epidemiological data (age, sex, profession), antecedents (personal, family, High Blood pressure prior treatment) clinical data (reason for consultation or referral, delay in symptom progression, the type of High Blood pressure, body mass index), para-clinical data (uremia, serum creatinine, blood glucose, cholesterolemia, triglyceride levels, telemetry, electrocardiography, the back of the eye, cerebral scanner), therapeutic data (Hygienic and dietary measures, antihypertensive drugs, adjuvant treatments) and prognostic data (cardiovascular risk factors, neurological, after-effect deaths). Data were treated and analyzed using Epi software info 6.04.

3. Results

3.1. Epidemiological Aspects

During our study, 751 High Blood pressure patients were admitted to both services, of which 250 had at least a complication, a frequency of 33.3%. Sex ratio was 1.40 (146 men versus 104 women). The average age was 52.4 years with extremes of 22 and 88 years. Majority of patients were 41 and 50 years old (74 cases) followed by those of 51 and 60 years old (60 cases). Three socio-professional components were the most represented: Housewives (21.6%), civil servants (20%) and individuals (18%) (Table 1).

1) *Previous history*

Hundred and seventy-one patients had previous High Blood pressure with a

Table 1. Distribution of patients according to occupation.

	Number	%
Housewives	54	21.6
Civil servants	50	20
Private	45	18
Craftsman	31	12.4
Traders	29	11.6
Retired	24	9.6
Farmers	15	6
Religious	2	0.8
Total	250	100

predominance of those with a High Blood pressure at 1 to 5 years (65.5%). Among the 171 patients having a previous history of High Blood pressure 110 patients were under anti High Blood pressure treatment (64.3%) with a bad observance of treatment in 90% of cases. Concerning family previous history 33 patients (13.2%) had a hypertensive parent.

The factor of risk of major modifiable cardiovascular found was due to the excessive consumption of salt (36.8%) (**Table 2**).

2) Clinical Aspects

Motives of consultation and admission were: Coma (32%), High Blood pressure surge (28%), motor deficit (14.8%), headache (13.2%), dyspnoea (11.2%), others (2%). The average delay of symptoms progression was 10.03 days with of 1 to 90 extremes.

Average systolic High Blood pressure was 193, 55 with 150 and 300 mmHg. Average diastolic High Blood pressure was 111.87 with extremes of 90 and 180 mmHg. Twenty-eight patients have been weighed and 22 patients' height was taken. Out of 22 patients 14 were overweight (63.6%) and 8 were obese (39.4%).

3) Complications

Complications found were: stroke (46%), cerebral hemorrhagia (20%), chronic renal failure (7.6%), Cardiac failure (31.2%), hypertensive retinopathy (14.8%) as indicated in **Table 3**.

4) Treatment Aspects

All patients enjoyed diabetes hygiene measures including rest, low-salt diet combined with a suitable diet with regard to the existence or not of risk factors.

Sixty-one point two percent (61.2%) of patients had been put under diuretic combination (Furosemide) and calcic inhibitory (Nifedipine), 12.4% under diuretic (Furosemide) and enzyme of conservation inhibitory (Captopril most often) as shown in **Table 4**.

Thirty-seven (37) patients had enjoyed a functional rehabilitation (physiotherapy). Five (5) patients had been dialysed.

Table 2. Distribution of patients according to modifiable risk factors.

	Number	%
Excessive consumption of salt	92	36.8
Consumption of alcohol	57	22.8
Dyslipidemia	20	8
Tobacco	13	5.2
Diabetes	12	4.8
Obeseness	7	2.8
Association of risk factors	29	11.6
Without risk factor	6	2.4
Total	250	100

Table 3. Distribution of patients according to complications.

	Number	%
AVCI	115	46
AVCH	50	20
IRC	19	7.6
Cardiac complications	78	31.2
hypertensive retinopathy	37	14.8
Polyvisceral attack	3	1.2
Total	250	100

Table 4. Distribution of patients according to the type of high blood pressure treatment.

	Number	%
Diuretic only	5	2
IEC only	14	5.6
Calcium inhibitory	4	1.6
Diurético + IEC	31	12.4
Diuretic + B-freezing	3	1.2
Diureti + calcium Inhibitory calcic	153	63.2
IEC + calcic Inhibitory	4	1.6
Diurético + IEC + Inhibitory calcic	24	9.6
Various associations	12	4.8
Total	250	100

3.2. Progressive Aspects

Two hundred and forty-five patients (245) were admitted (98%). During this hospitalization, the progression was favorable in 51.2% of cases (128 patients) and unfavorable in 48.8% (122 patients) with 85 deaths, that is an overall mortality level of 34% and 37 patients with neurological after effects of hemiplegia

type (14.8%). The leading causes of death were cardiovascular accident (85.8%).

4. Discussion

1) *Epidemiological Aspects*

Hospital frequency of High Blood pressure is variously appreciated by African authors. It varied from 20.83% to 59.79% [6] [7] [8] [9]. These observed differences could be explained not only by the number of samples studied, but also by the peculiarity of each study. The most affected range in our study was 41 to 60 years old (53.6%) as in Mouanodji's set *et al.* [8] series in Chad. The 35 to 55 age group dominated in the series of Baragou *et al.*, [9] in Togo. Male predominance observed in our sets is similar to other series [8] [9]. However, Diallo *et al.* [6] had noted a female predominance in her study.

2) *Antecedents*

In our set, majority of patients (68.4%) had a previous history hypertension as reported by other authors [9] [10]. Other cardiovascular risk factors (modifiable) as it happens in the excessive consumption of salt, alcohol, dyslipidemia, tobacco, sedentary lifestyle, diabetes and obesity have also been reported by authors but in various frequencies [10] [11].

3) *Clinical Aspects*

Our patients were consulted for the following main reasons: coma (32%), surge High Blood pressure (28%), motor deficit (14.8%), and headache (13.2%) dyspnea (11.2%). In their sets, Baragou *et al.* in 2010 [9] found these same reasons with similar levels, as Mouanodji [8] but at various frequencies.

4) *Complications*

Cerebrovascular accidents had been the most predominant complications in our study (66%), including 46% of strokes, contrary to Baragou's studies *et al.*, [9] who reported a lower rate. This is serious knowing that this complication is disabling with its socioeconomic consequences. Several studies confirm the prevalence of AVCI compared to AVCH with the hypertensive patients [9] [10] [12].

Hypertensive retinopathy was the third complication in our set (14.8%). It was objectivized at the back of the eye according to the classification of Keith Wagner and Barker. These abnormalities could be explained by the delay and High Blood pressure caretaking in our milieus.

Chronic renal failure is the fourth complication revealed in our study: 19 cases or 7.6%. 9 patients were in top stage. Indeed, High Blood pressure is an important risk factor which is very frequently manifested during chronic renal failure [13]. We attribute the high percentage chronic renal insufficiency cases to poor caretaking of High Blood pressure (lack of treatment, non-observance of treatment, treatment rupture, and traditional treatment); late consultation and the absence of systematic checkup of each hypertensive patient.

4.1. Treatment Aspects

All our patients had enjoyed from hygiene nutritional measures: rest and low

sodium diet associated with an appropriate diet based on the existence or not of a risk factor. Dual treatment has been predominant in our set (76.4%) and inhibitory combination of conversion enzyme-calcium was the most used combination (61.2%). Dual treatment has also been reported by some African authors [14]. The caretaking of complicated High Blood pressure patient would therefore require the combination of several treatment classes.

4.2. Progressive Aspects

The progression during admission has been marked by the death of 85 patients or 34% and the cardiovascular accident mortality was 85.9% with its prevalence of (61.6%) compared to 38.4% for strokes. The high mortality rates in our developing countries could be explained by the late consultation after the disease. This delay could be related not only to traditional or religious practices, but also to delay in caretaking in our units.

5. Conclusion

High blood pressure is a major public health problem. Its gravity is due to its effect on the target organs (brain, heart, eye and kidney) with a clinical symptomatology with high functional signs. This current study allowed us to identify the main complications of this disorder in hospital environment in Lomé. They are dominated by cerebrovascular accident. Strategies put in place for a better primary and secondary prevention of patients at-risk will help to stabilize and/or slow down the progression of this disorder.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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