



O paradoxo da hipertensão – Doença não controlada apesar da melhora na terapia

**Apresentado por Lilian Pires de Freitas do Carmo
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do Hospital das Clínicas da Faculdade de Medicina da
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SPECIAL ARTICLE

SHATTUCK LECTURE

The Hypertension Paradox — More Uncontrolled Disease despite Improved Therapy

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The Hypertension Paradox — More Uncontrolled Disease despite Improved Therapy

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- Tratamento da HAS => um dos maiores sucessos da Medicina nas últimas 5 décadas

X

- HAS => grande problema de saúde pública, prevalência crescente, assim como o número de pessoas não-controladas



EARLY APPROACHES TO THERAPY

- Kempner: dieta
- Smithwick: cirurgia (simpatectomia lombodorsal, esplanectomia com ressecção do gânglio simpático)
- Wilkins:
 - Terapia medicamentosa
 - Associação de drogas de mecanismo diferentes

“No case of hypertension associated with good renal function should be considered impossible to treat until proven otherwise.”⁸

BENEFITS OF ANTIHYPERTENSIVE-DRUG THERAPY

- ❑ Redução nos eventos cardiovasculares
- ❑ Importância na redução da PA em idosos com HA sistólica elevada
- ❑ Pacientes com mais de 80 anos, substancial redução na mortalidade e morbidade por doença cardiovascular (tratados com diuréticos e IECA)
- ❑ HA maligna => evento raro

Table 1. Advances in the Treatment of Hypertension.

Decade and Therapy

1940s

Potassium thiocyanate
Kempner diet
Lumbodorsal sympathectomy

1950s

Rauwolfia serpentina
Ganglionic blockers
Veratrum alkaloids
Hydralazine
Guanethidine
Thiazide diuretics

1960s

α_2 -Adrenergic-receptor agonists
Spironolactone
 β -Adrenergic-receptor agonists

1970s

α_1 -Adrenergic-receptor antagonists
Angiotensin-converting-enzyme inhibitors

1980s

Calcium antagonists

1990s

Angiotensin-receptor blockers
Endothelin-receptor antagonists*

2000s

Renin inhibitors



EVOLVING APPROACHES TO TREATMENT

- **Modificações do estilo de vida: TODOS**
 - Controle do peso, exercícios físicos, dieta pobre em Na e rica em K, DASH, diminuição ingestão etílica

- **Drogas**

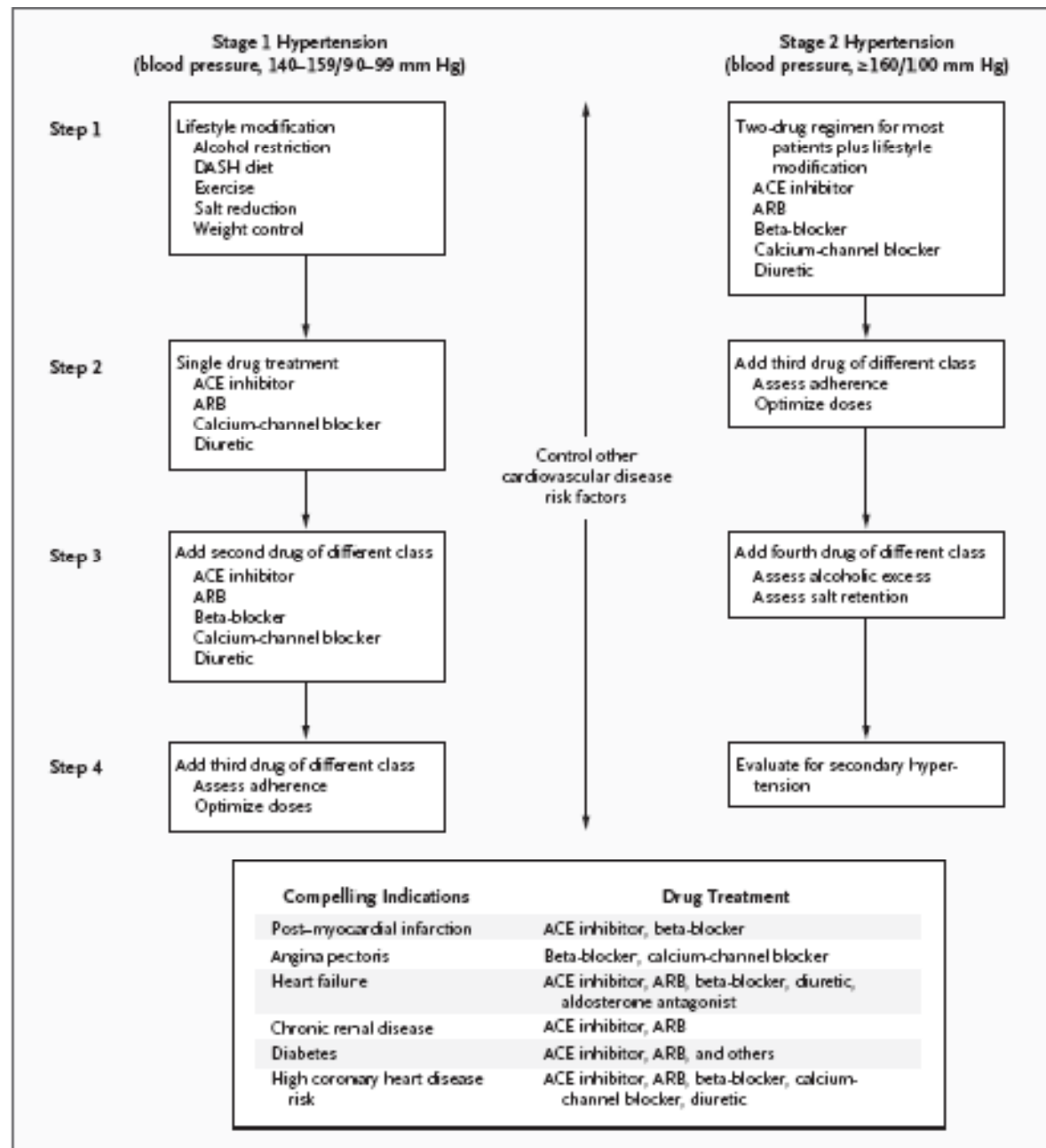
To determine whether a given drug or drug combination is superior to any other, several comparison trials have been performed. In general, these studies have shown minimal differences in primary outcomes among the drug classes, as long as equivalent reduction in blood pressure has been achieved.



Table 2. Comparative Drug Trials in Patients with Hypertension.*

Trial Name	Drug Comparison	Primary Outcome
STOP-2 ²⁷	Thiazide-type diuretic plus beta-blocker vs. ACE inhibitor plus calcium-channel blocker	No significant difference
ALLHAT ²⁸	Thiazide-type diuretic vs. ACE inhibitor vs. calcium-channel blocker	No significant difference
INVEST ²⁹	Thiazide-type diuretic plus beta-blocker vs. calcium-channel blocker plus ACE inhibitor	No significant difference
ASCOT ³⁰	Thiazide-type diuretic plus beta-blocker vs. calcium-channel blocker plus ACE inhibitor	No significant difference
LIFE ³¹	Angiotensin-receptor blocker vs. beta-blocker	Angiotensin-receptor blocker superior
ANBP2 ³²	Thiazide-type diuretic vs. ACE inhibitor	ACE inhibitor superior in men only
ACCOMPLISH ³³	ACE inhibitor plus thiazide-type diuretic vs. ACE inhibitor plus calcium-channel blocker	ACE inhibitor plus calcium-channel blocker superior

However, the bulk of evidence indicates that by far the most critical aspect of therapy is the lowering of blood pressure, regardless of how this is achieved.



HYPERTENSION CONTROL

- ❑ Continua inadequado apesar de todo aparato medicamentoso
- ❑ Pior em pacientes com DRC, DM, ICO, disfunção ventricular
- ❑ Raça, etnia, condições sociais afetam controle da HA

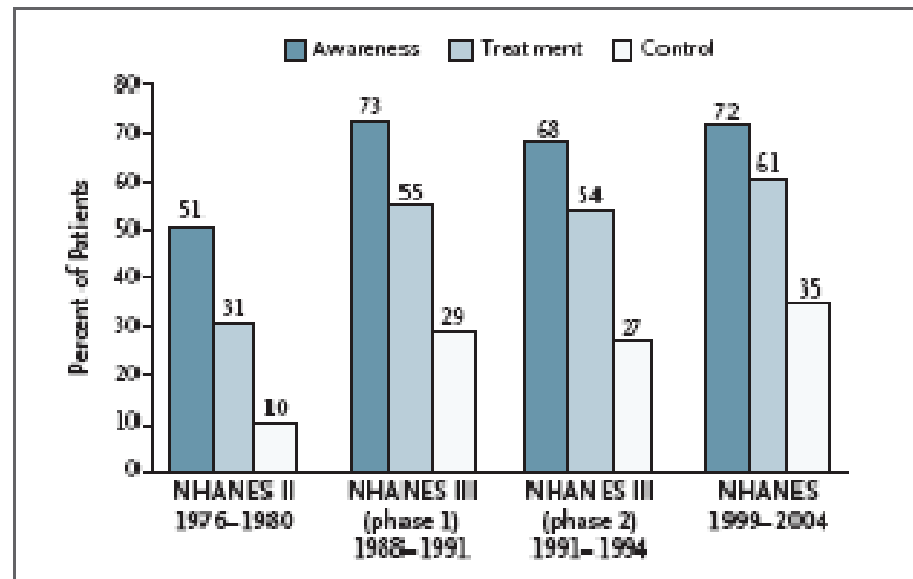


Figure 2. Rates of Awareness, Treatment, and Control of High Blood Pressure in the United States (1976–2004).

High blood pressure is defined as a reading of 140/90 mm Hg or more for persons between the ages of 18 and 74 years. Despite major improvements in blood-pressure therapies in recent years, some 28% of Americans with hypertension do not know they have the condition, 39% are receiving no therapy, and 65% have insufficient blood-pressure control. Data are from Chobanian et al.¹² and Cutler et al.⁴² NHANES denotes National Health and Nutrition Examination Survey.

INCREASE IN THE PREVALENCE OF HYPERTENSION

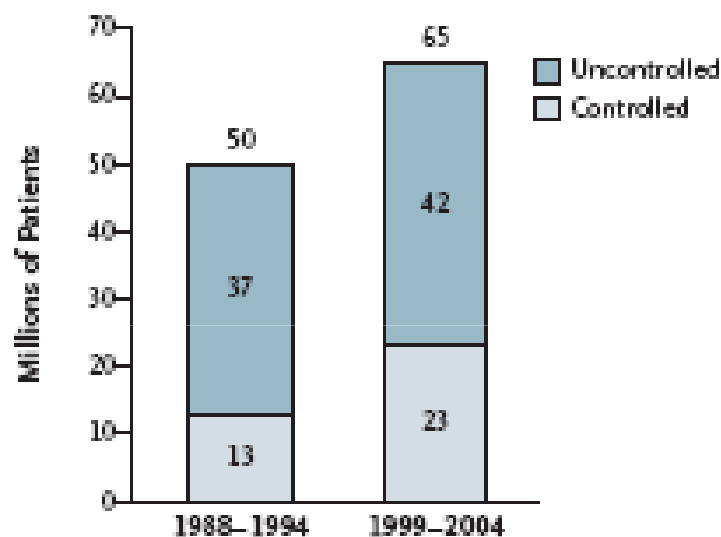


Figure 3. Changes in the Prevalence and Control of Hypertension in the United States (1988–2004).

The total number of persons with uncontrolled hypertension has increased from 37 million to 42 million during the past two decades, even though the rate of control has increased from 27% to 35% during the same period. Data are from Chobanian et al.^{1,2} and Cutler et al.⁴¹

Table 3. Risk Factors for Hypertension.*

Genetic predisposition or family history
Black race
Diagnosis of prehypertension
Increasing age
Obesity
High sodium–low potassium intake
Excessive alcohol intake
Low socioeconomic status
Sleep apnea
Use of certain illegal drugs or over-the-counter medications

* Data are from Chobanian et al.²⁶