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The Influence of Metabolic Factors on Central Blood Pressure Lowering Effect of Different Combinations of Antihypertensive Drugs

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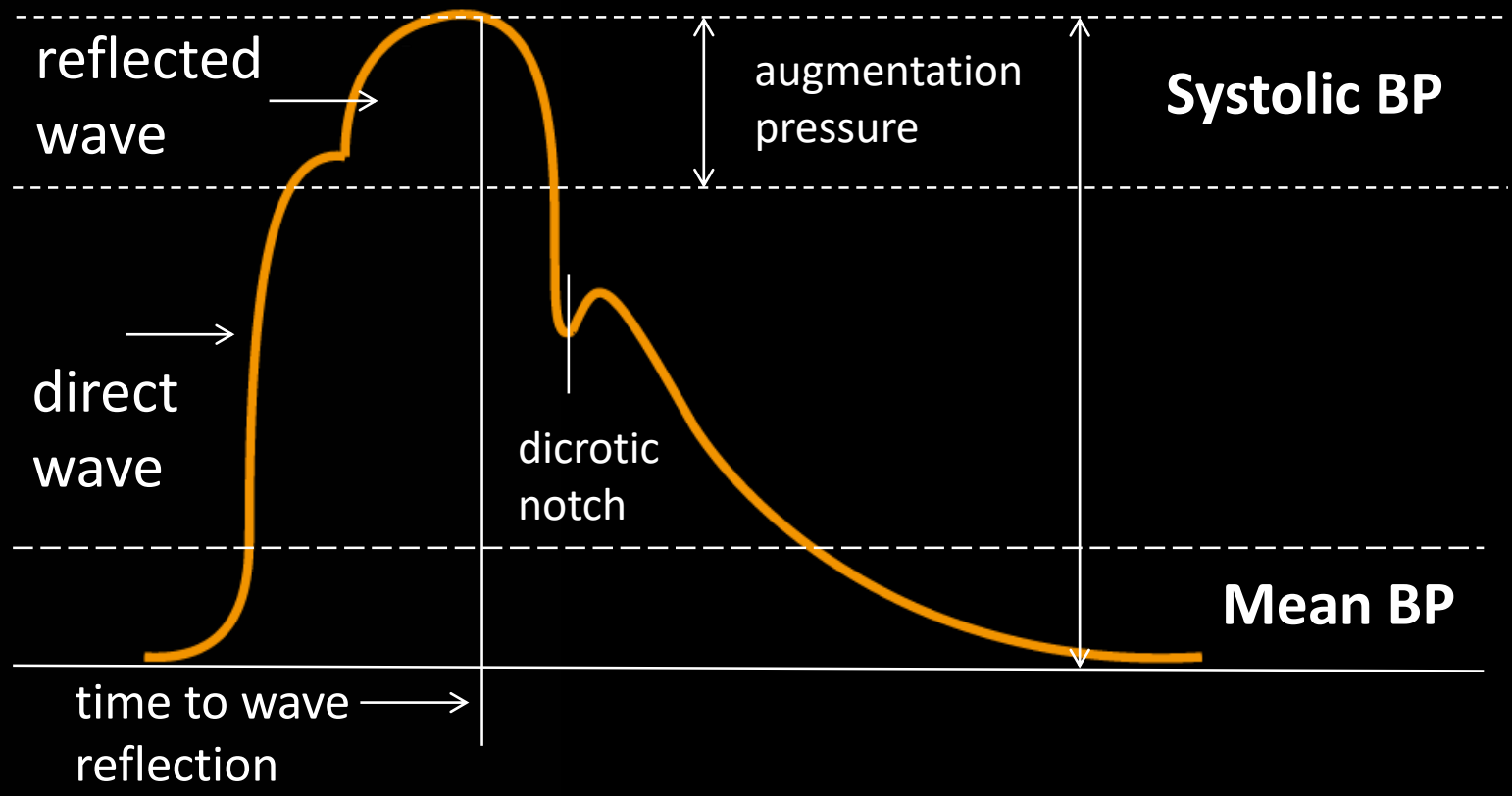
Venice, 2018

CONTOUR PULSE WAVE ANALYSIS



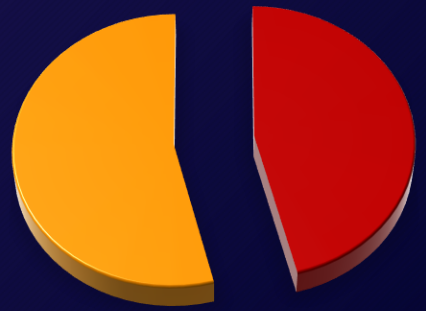
MATERIALS AND METHODS

- 59 patients with AH
- mean age: 54.2±1.3 years
- office SBP 171,3±2,1 mmHg and DBP 98,6±1,3 mmHg

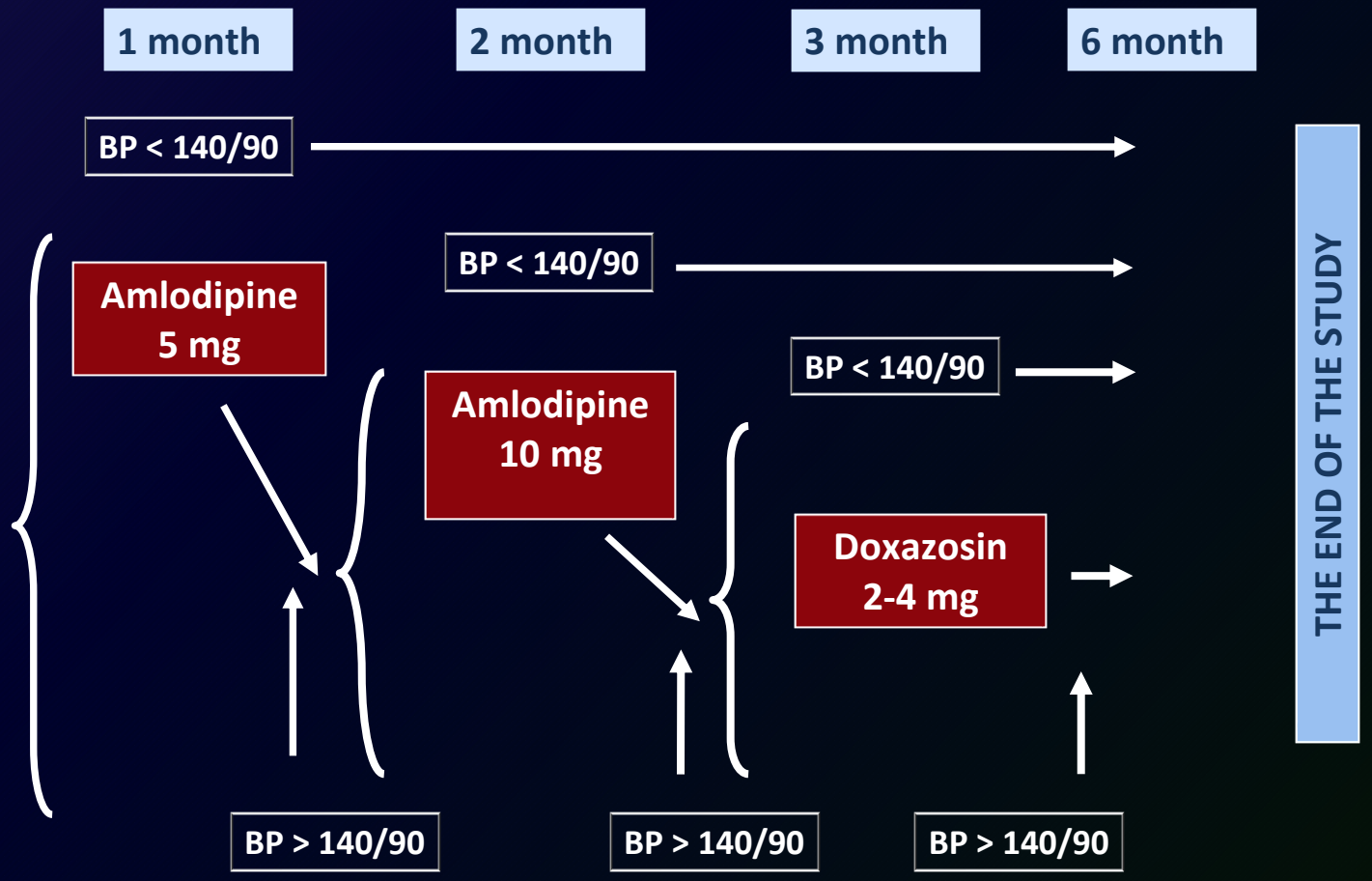
- Methods:
  - height, weight, BMI
  - office SBP, DBP and HR measurements
  - biochemical blood tests
  - echocardiography
  - noninvasive determination of cSBP, augmentation index (Aix), measurement of cfPWV and crPWV

Amount of patients with isolated ISH and normal cSBP

Lizinopril 40 + HCHTZ 25 (n=32)

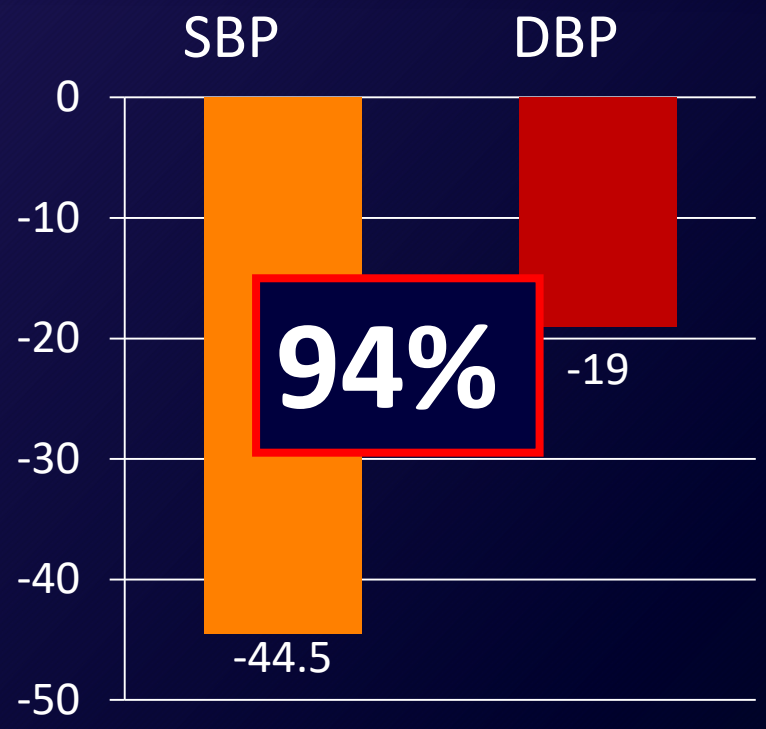


Bisoprolol 10 + HCHTZ 25 (n=27)

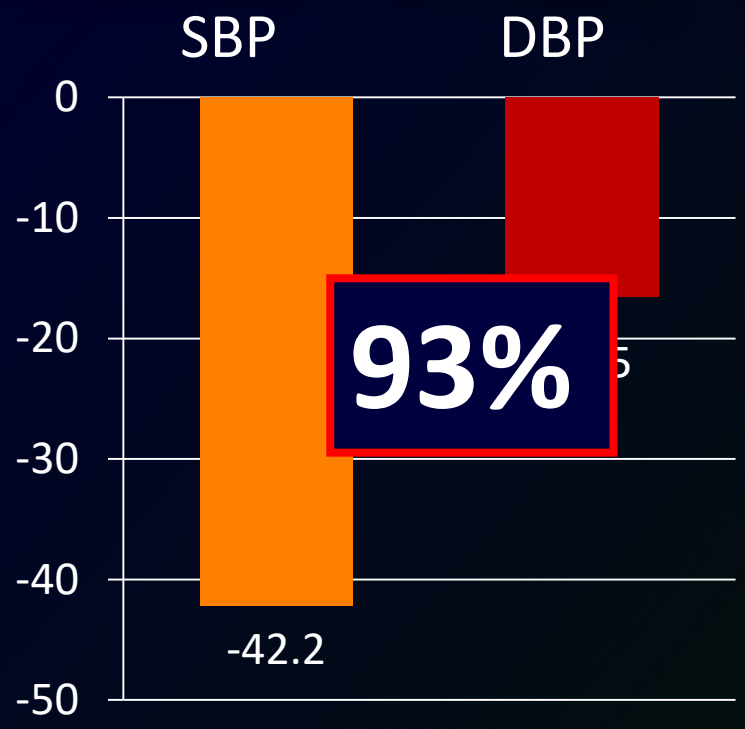


Characteristics	Liz + HCHTZ n=32	B + HCHTZ n=27	P
Age, years	56,7±1,9	51,3 ± 3,4	NS
Women/men, n (%)	18 (56,3)/14 (43,8)	9 (33,5)/18 (66,7)	NS
BMI, kg/m2	30,8±0,9	29,9±1,8	NS
Office SBP, mmHg	171,3±2,5	172,4±1,6	NS
Office DBP, mmHg	98,3±1,9	97,6±1,3	NS
New diagnosed AH, n (%)	16 (50)	17 (62,9)	NS
Smoking, n (%)	5 (15,6)	3 (11,1)	NS
AH in family hystory, n (%)	14 (43,8)	9 (33,5)	NS
Prior beta-blockers intake, n (%)	9 (28,1)	3 (11,1)	NS
Prior ACE inhibitors intake, n (%)	15 (46,9)	9 (33,5)	NS
Prior diuretics intake, n (%)	10 (31,3)	4 (14,8)	NS
Prior calcium channel antagonists intake, n (%)	4 (12,5)	4 (14,8)	NS
Prior central acting drugs intake, n (%)	1 (3,1)	0 (0)	NS
Fasting Glucose, mmol/l	5,2±0,3	5,3±0,5	NS
Amlodipine 5 mg, n (%)	27 (84,4)	20 (74,1)	NS
Amlodipine 10 mg, n (%)	16 (50)	16 (59,3)	NS
Doxazosine, n (%)	2 (6,3)	3 (11,1)	NS

OFFICE BP



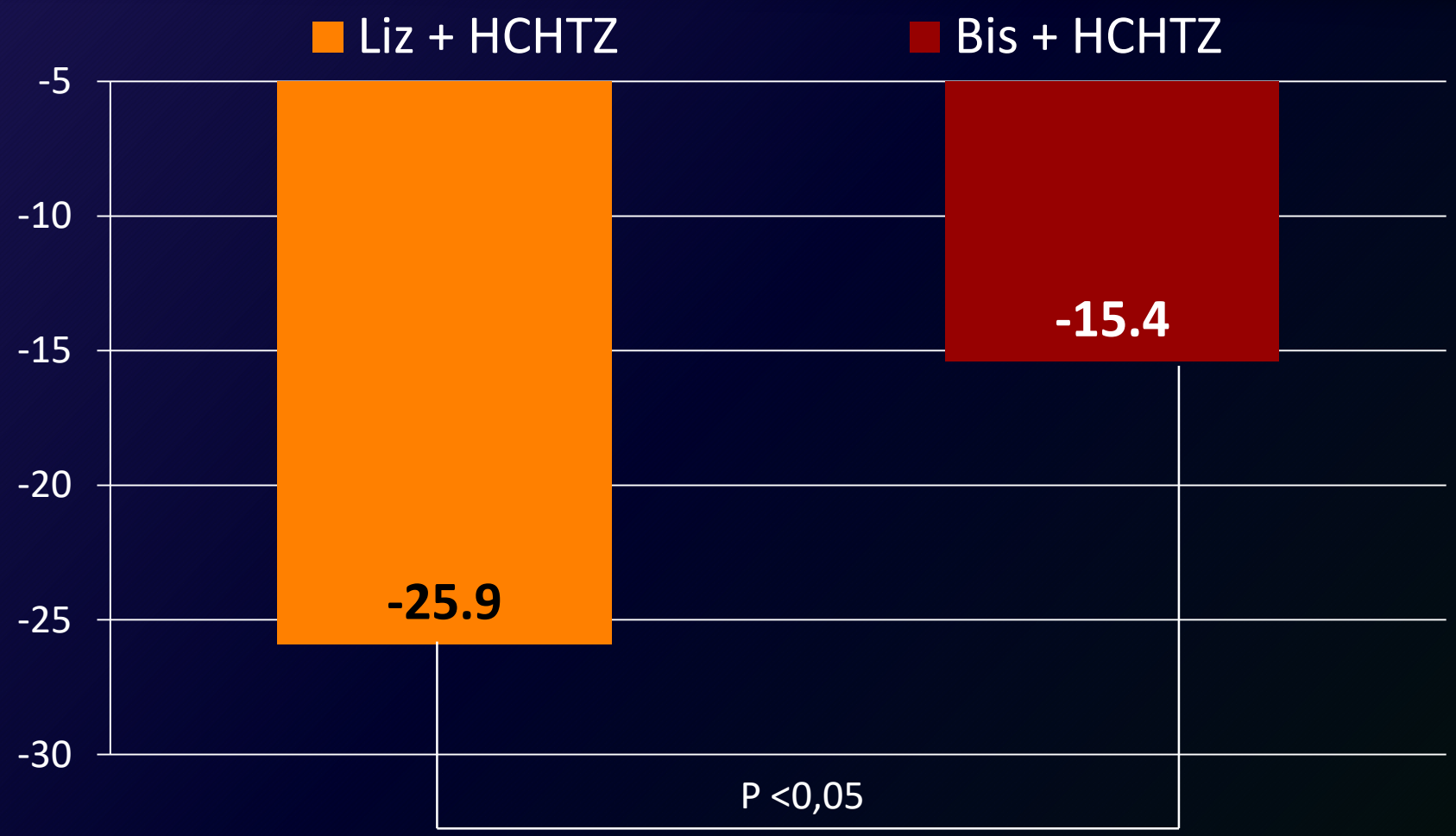
Liz + HCHTZ



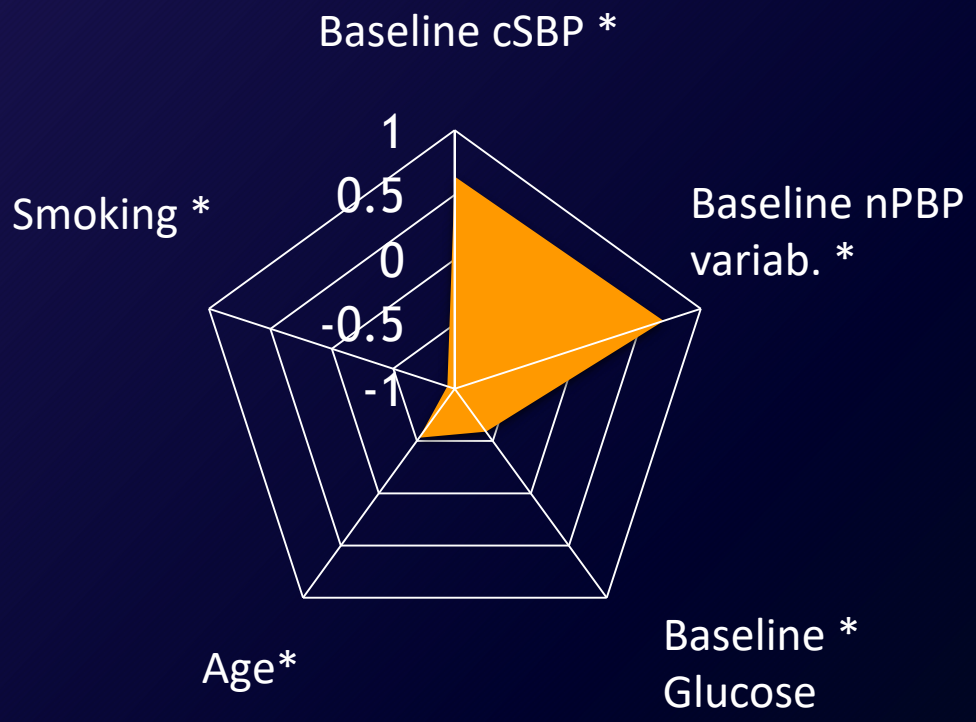
Bis + HCHTZ

P=NS for the difference between groups

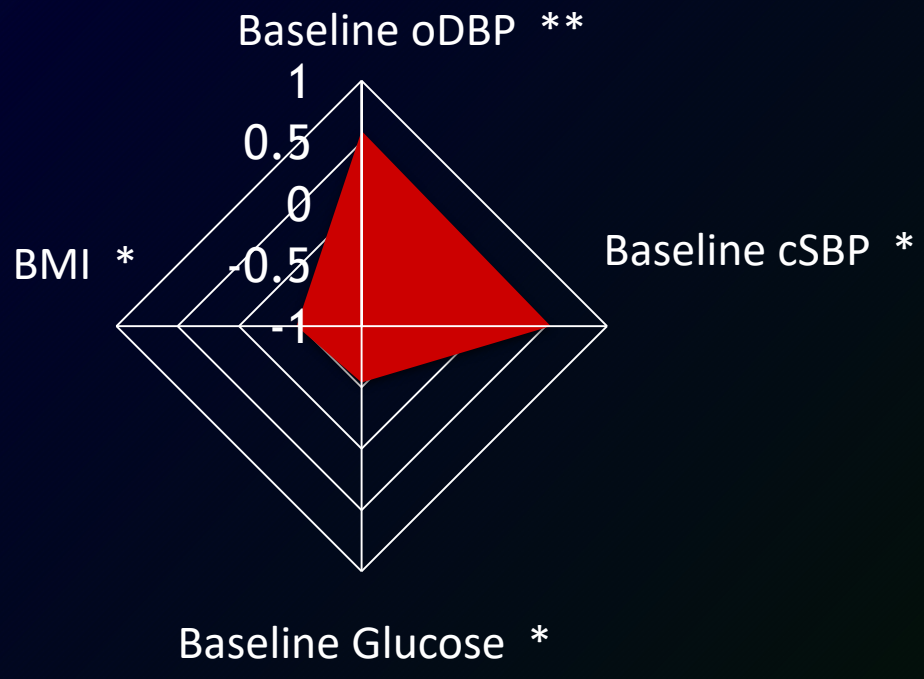
CENTRAL SBP REDUCTION



Factors correlated (by Spearman) with the degree of cSBP reduction



Liz + HCHTZ



Bis + HCHTZ

* P<0,05; ** p<0,001

Conclusions

1. The degree of cSBP reduction was significantly higher in Lis + HCHTZ group compared with Bis + HCHTZ
2. The degree of cSBP reduction in Liz + HCHTZ group was lower at higher level of baseline fasting Glu, smoking and at a older age
3. The degree of cSBP reduction in Bis + HCHTZ group was inversely correlated with the baseline fasting Glu and BMI
4. Metabolic factor – baseline fasting Glu, in both groups was significantly associated with cSBP dynamics