

HYPERTENSION IN PREGNANCY

(Opinion of Nephrologist)
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HT in Pregnancy - Definition

Blood pressure ≥ 140 and/or 90 mmHg

or

Systolic BP ≥ 25 mm Hg

Diastolic BP ≥ 15 mm Hg

From preconception or first-trimester

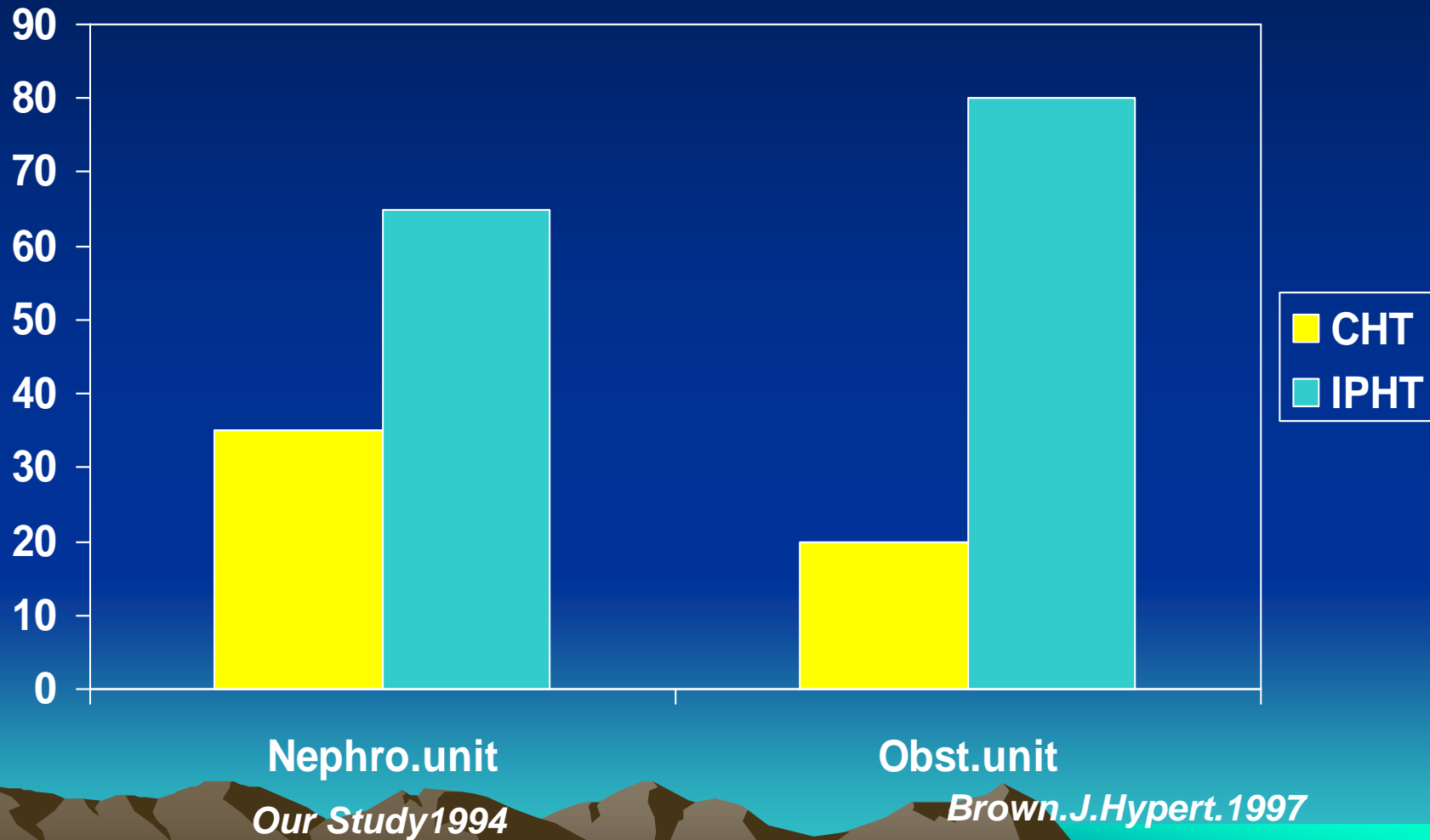
Classification(ISHT in Preg.)

BP before pregnancy	Without proteinuria	Proteinuria
Normal BP	Pregnancy induced hypertension	Preeclampsia
Hypertension	Chronic hypertension	Preeclampsia In chronic hypertension

Differential diagnosis of pregnancy HT and chronic HT

	Pregnancy induced HT	Chronic HTA
During preg HT Proteinuria	After 20 w Occurs with/ after	Before 20 w occurs before/ with
Post-partum HT or protéinuria	Resolve by 6 months	Persist by 6 months

Causes of Hypertension in pregnancy(100cases)



Differentiel diagnostis of chronic HT or Preg Induced HT

	Pregnancy Induced HT	Chronic HT	P
Age	24 ± 4	29 ± 7	NS
Parity	2,3 ± 1,3	2,8 ± 1,4	NS
Before 3 months	24%	76%	**
VLH	0%	100%	**
HyperUricemia	17%	83%	*
Recurrence	50%	100%	*

Management of Mild and moderate Hypertension

Comparison or outcome

Maternal

Proteinuria

Cesarean section

Abortion

Perinatal

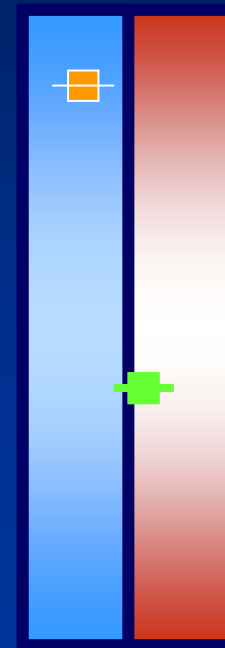
mortality

small for gest age

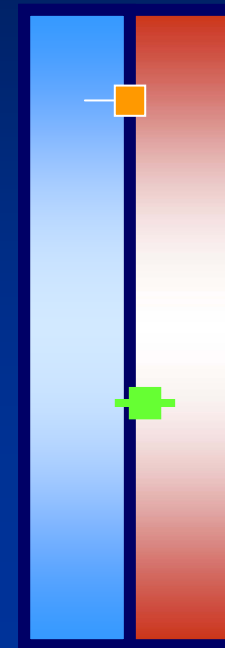
low apgar score

Chronic HT(7)

Pregnancy Induced HT(6)



Treat Cont



Treat Cont

Summary odds ratio for treatment versus control for mild chronic HTA and pregnancy induced HTA in 13 trials

L.A. Magee and al. BMJ. 1999

Management of severe Hypertension

Comparison or outcome

Maternal

Cesarean section

Aburption

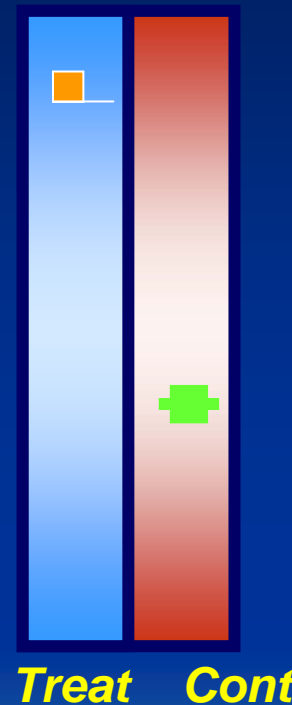
HELLP syndrome

Perinatal

mortality

morbidity

others



Summary for « aggression » « versus » « expectant » of severe hypertension in two trial

L.A. Magee and al. BMJ. 2003

Antihypertensive drugs Indications

1- Severe HT

- **Systolic BP \geq 160 mm Hg**
- **Diastolic BP \geq 110 mm Hg**

Maternal prognosis: compromise

2- Mild or moderate HT

- **Chronic HT :adapt the treat.**
- **Preg. Ind HT: supervision**

Antihypertensive drug and pregnancy

Methy Dopa	: yes
β Blockers	: yes
α Blocker	: yes
β and α Blocker	: yes
Calcium channel blocker	: yes

Hydralazine	??
Propranolol	No recommended
Diuretic	No recommended

ACE inhibitors	contraindicated (RASB)
Angiotensin II receptor blockers	

gravidic HT– Prevention

- Aspirin+++
- Dipyridamole
- Calcium
- Smoking?
- Regular physical activity ?
- Treat Obesity

Our Results (prospec.study)

Table 2. Prevention of complications of HT in pregnancy with Aspirin and Dipyridamole

Parameter	Group I n = 30(Treat)	Group II n = 30(cont)	P
HT	1	5	NS
HT + proteinuria	2	10	*
Duration	37,7 ± 1,1	36,8 ± 2,2	*
foetal weight	2959 + 486	2352 ± 600	***
Normal pregnancy	25	5	***
IUGR	5	20	***
Foetal death	02 (2)	10	**
Eclampsia	0	4	*
RPH	0	2	NS
Caesarean (%)	41	46	NS

* P < 0,05; ** P < 0,01; *** P < 0,001

Our Results (second study)

Table 4. Prevention complications of HT in pregnancy with Aspirin or Aspirin and Dipiridamole

Parameter	Group I n = 25(Aspirin)	Group II n = 26(Aspirin and Dip)	P
HT	1	1	NS
HT + proteinuria	8	7	NS
Duration	36 ± 3	37 ± 1	NS
fetal weight	2932 + 744	2928 ±310	NS
Normal pregnancy	16	18	NS
IUGR	5	4	NS
Fetal death	2	&	NS
Eclampsia	0	0	NS
RPH	0	0	NS
Caesarean (%)	12	13	NS

* P < 0,05; ** P < 0,01; *** P < 0,001

Grandic Hyperten. : Aspirin (2005)

Action : - antithrombotic
- antiinflammatory

Dose ? = 100 – 150 mg/day
(All day or alternate)

When ? = 10 – 17 weeks

Bleeding time ? Ivy method $\geq 2 \leq 8$ mn

Grandic Hyperten.: Aspirin (2005)

Multiparous

- Previous history of preeclampsia (+)
- IUGR (+)
- Perinatal death(+)

- Antiphospholipid syndrome
- Chronic hypertension ?
- Diabetes mellitus ?
- Chronic nephropathy?
- Pathologic Doppler ?

Grandic Hyperten.: Aspirin(2005)

Primiparous

- Family history of preeclampsia ?
- Antiphospholipid syndrome
- Chronic hypertension ?
- Diabetes Millitus ?
- Pathologic uterine art.Doppler ?

Study of HT in pregnancy

About 100 Pre.eclampsia

- pregnancy induced hypertension:
65 cases (65%)
- Chronic hypertension : 35 cases (35%)