

FUROSEMIDE VS. AMLODIPINE IN POST PARTUM BLOOD PRESSURE CONTROL: A DOUBLE BLIND RANDOMIZED CLINICAL TRIAL

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AIM:
To *compare Furosemide with Amlodipine* in accelerating blood pressure recovery in women having postpartum hypertension.

MATERIALS AND METHODS:

- Study Period:** November 2018 to April 2020
- Place of study:** Labor and postnatal wards of Dept of Obst & Gynae, UCMS & GTB Hospital, Delhi
- Study Design:** Double blind randomized clinical trial
- Statistical Sample Size:** 98 subjects (49 in each group)

Selection of Study subjects
Inclusion Criteria

- Women diagnosed as preeclampsia/eclampsia
- /gestational hypertension within 48 hrs. of delivery

Exclusion Criteria

- A. Maternal Criteria
- Women with chronic hypertension, DM
 - Preexisting hypokalemia
 - Acute or Chronic renal disease
 - Receiving MgSO4 therapy
 - Received intravenous furosemide during ICU care
- B. Neonatal Criteria
- Preterm baby (<34 weeks) or Admission to NICU

Group 1
• T. furosemide 40 mg od • T. potassium 10 mEq od

Group 2
• T. amlodipine 5 mg od • Placebo

OBJECTIVE: To *compare the effectiveness of Furosemide with Amlodipine* in postpartum hypertension by following parameters:

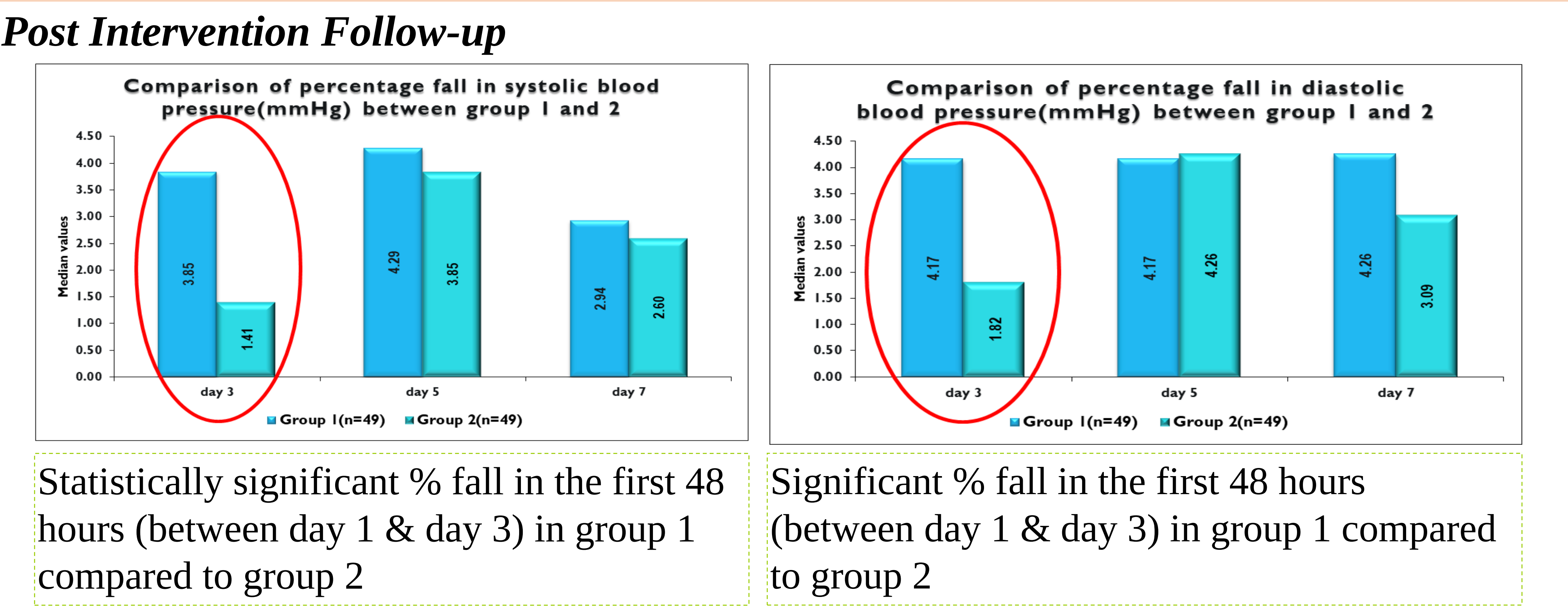
- Blood pressure control: daily averages of systolic arterial pressure, diastolic arterial pressure and mean arterial pressure.
- Time taken for blood pressure control.
- Need for additional antihypertensive requirement.

RESULTS

- **Incidence** of postpartum hypertension :**13.1 %**
- **Majority** of the study population comprised of **non-severe preeclampsia** (52%), followed by severe preeclampsia (21%) and gestational hypertension (17%) and only 9 cases of denovo postpartum hypertension.
- **Statistically significant percentage** fall in mean SBP (p 0.02), DBP (p 0.04) , MAP (p 0.031) from day 1 to 7th postpartum seen with furosemide (10-11% vs. 7-8%)
- **Requirement of additional antihypertensive:** **higher in the amlodipine group** (59 % vs. 38%)
- Response to treatment: Greater fall in SBP, DBP, & MAP in group 1 subjects among all classes of HDP except for severe preeclampsia.
- Neonatal outcomes: No episode of hypoglycemia & Breast feeding adequate

CONCLUSION

- Furosemide *accelerates the blood pressure recovery* and provides a better & faster blood pressure control.
- **Reduces the need for additional antihypertensive drugs** ,hypertensive crises episodes (prevents fluid overload & Pulmonary edema) leading to substantial savings for health care system.
- No adverse effects on the mother and neonate.



DISCUSSION	
Veena et al	No difference in the fall of mean SBP, DBP, MAP
Ascarelli et al	Significantly lower SBP on postpartum day 2
Matthews et al	Sustained fall in MAP seen in furosemide arm compared to placebo

FUROSEMIDE CAN BE THE ‘**BIGGER LIFE SAVER**’ IN POSTPARTUM HYPERTENSION