

Frequency of PIH among Primigravida having Raised Serum β -hCG Levels in Second Trimester of Pregnancy

❑ INTRODUCTION

- ❑ Gestational hypertension or pregnancy-induced hypertension (PIH) is defined as the development of new arterial hypertension in a pregnant woman after 20 weeks gestation without the presence of protein in the urine. Pregnancy induced hypertension affects about 12-15% of all pregnant women.¹ Incidence of PIH in nulliparous women is 4 – 5 times higher than that in multipara – about 85
- ❑ One of the initial event that has been considered in the disease process of PIH is the abnormal placentation. In pre-eclampsia histological examination reveal focal cellular necrosis in the syncytiotrophoblast and increased mitotic activity with cellular proliferation in the cytotrophoblast.⁶ Placental vascular damage leading to decreased oxygen supply might result in increased hCG production by hyperplasic cytotrophoblastic cells
- ❑ This study had been designed to ascertain whether β -hCG levels in second trimester can predict the development of PIH.

❑ METHODOLOGY

STUDY DESIGN:
Descriptive case series.

SETTING:
Gynecology and Obstetrics Department, PIMS Hospital, Islamabad.

SAMPLE TECHNIQUE:
Non-probability purposive sampling.

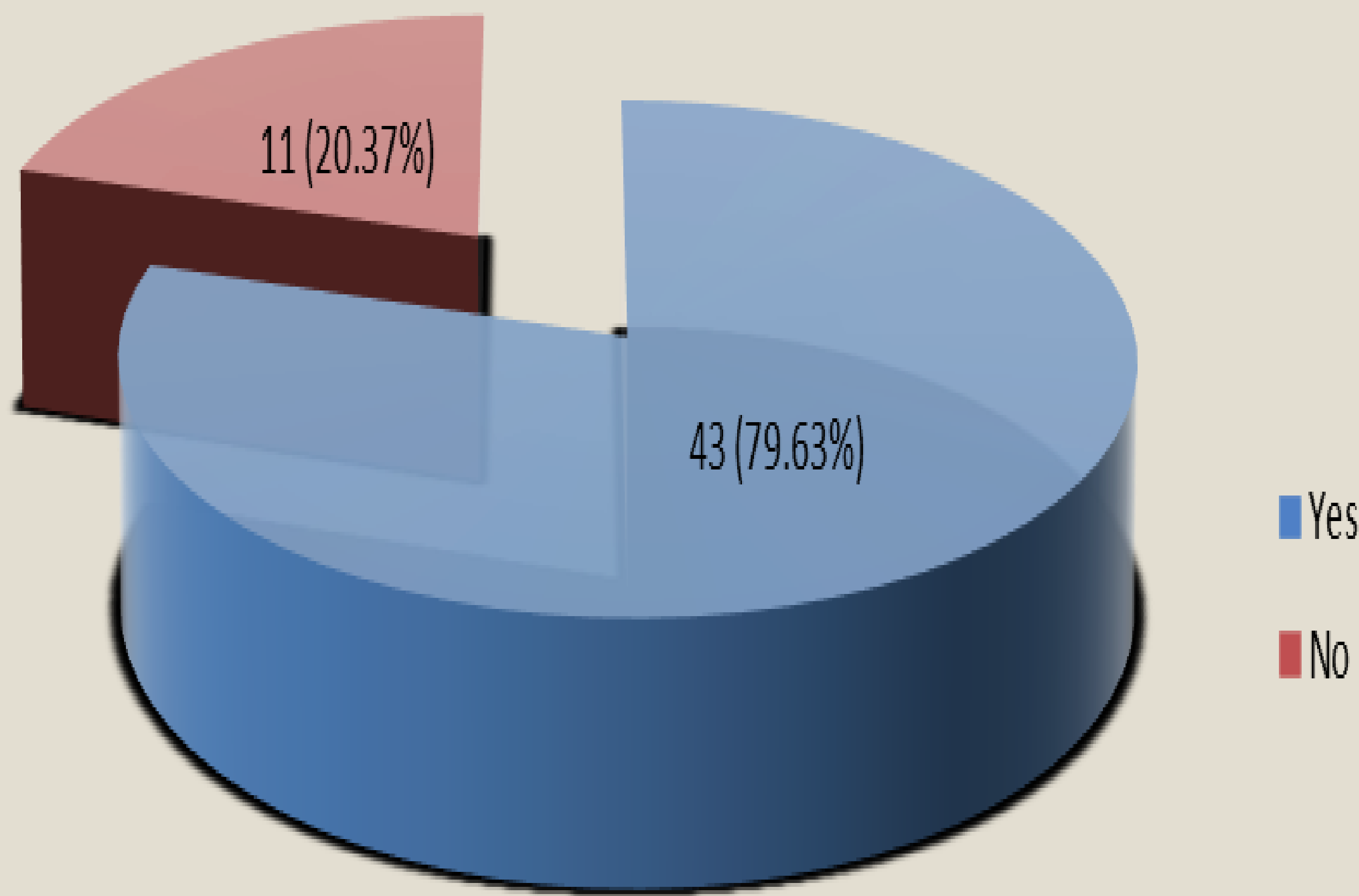
SAMPLE SELECTION:
a. Inclusion Criteria:
Singleton pregnancy
Primigravida
Age = 20 – 35 yrs
Gestational age: 16-18 weeks
Normotensive - B.P $\leq$ 120/80mmHg
No Proteinuria
Beta hCG levels $\geq$ 10,000 mIU/ml.

b. Exclusion Criteria:
Essential hypertension.
Any other chronic or preexisting disease e.g. Renal ailment
Congenital Malformation in the fetus
Diabetes Mellitus
Molar Pregnancy
Past History of Down Syndrome.

❑ CONCLUSION

- ❑ This study concluded that frequency of PIH among primigravida having raised serum β -hCG levels in second trimester of pregnancy is very high. So, we recommend that serum β -hCG levels in second trimester of pregnancy should be done routinely in every woman to predict in advance that which woman will develop PIH on the basis of raised beta hCG levels, we can take all the precautions to prevent it like put these women on early management and hence decreasing morbidity.

Distribution of patients with PIH among primigravida having raised serum β -hCG levels in second trimester of pregnancy (n=54).



Age (years)	PIH		p-value
	Yes	No	
20-25	15 (83.33%)	03 (16.67%)	0.477
26-30	15 (71.43%)	06 (28.57%)	
31-35	13 (86.67%)	02 (13.33%)	

Stratification of PIH with respect to age groups.

Stratification of PIH with respect to gestational age

Gestational age (weeks)	PIH		p-value
	Yes	No	
16-28 weeks	34 (82.93%)	07 (17.07%)	0.285
29-40 weeks	09 (69.23%)	04 (30.77%)	