

## Characteristics of Hypertensive Pregnant Women at a Tertiary Maternity Hospital in Qatar, 2015 - 2017

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### Abstract

Chronic hypertension affects 10% of women in reproductive age and 1 to 2% of pregnant women. The rising incidence of hypertension is associated with advanced maternal age, and several comorbidities such as pre-gestational diabetes, renal impairment, and heart disease.

This is a case-controlled study to identify the factors associated with essential hypertension during pregnancy at a tertiary maternity facility.

**Keywords:** Chronic Hypertension; Pregnant Women

### Introduction

Chronic hypertension affects 10% of women in reproductive age and 1 to 2% of pregnant women. The rising incidence of hypertension is associated with advanced maternal age, and several comorbidities such as pre-gestational diabetes, renal impairment, and heart disease [1]. In Qatar, overweight or obesity and hypertension affect a large portion of the population, including women of reproductive age [2]. Thus, the current study aims to identify the factors associated with essential hypertension during pregnancy at a tertiary maternity facility in Doha, Qatar.

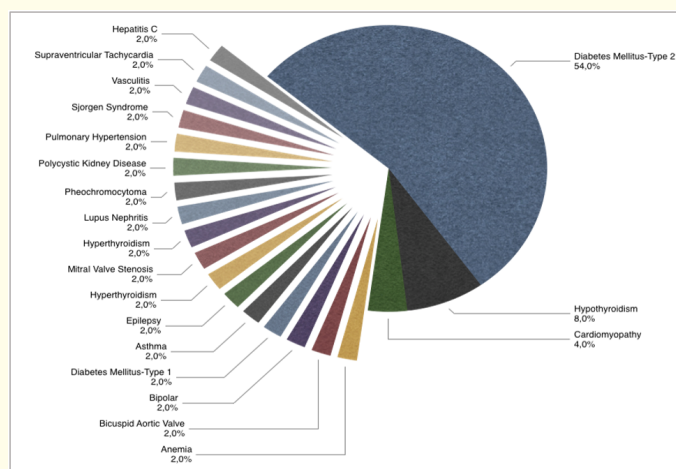
### Methods

This was a hospital-based unmatched case-control study among pregnant women, who were attending antenatal follow up at the Women Hospital/ Women Wellness and Research Center (Doha, Qatar) between January 1, 2015 and December 30, 2017. Simple random sampling was utilized to recruit 82 cases (pregnant women with hypertension) and 82 controls (pregnant women without hypertension). Frequency distribution, cross tabulation, and bivariate analyses were done using Wizard Pro (version 1.9.26). A P-value less than 0.05 was considered statistically significant.

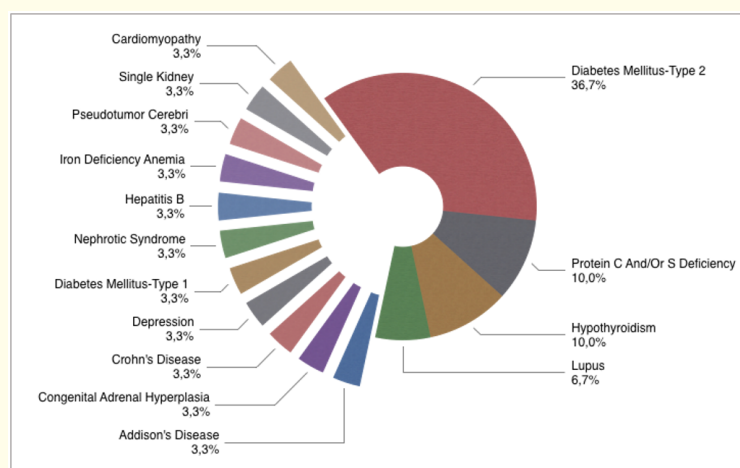
### Results

Among the 164 study subjects, the mean age was 36.9 years and 31.5 years among the cases and controls respectively ( $p < 0.001$ ). Moreover, 48.8% of the cases had comorbidities in comparison to 30.5% of the controls ( $p = 0.017$ ). Similarly, the prevalence of diabetes mellitus among cases (34.1%) was more than double that among the controls (14.6%) (0.004). Nevertheless, the prevalence of other comorbidities (renal disease, cardiac disease) was not statistically significant between the cases and controls despite a clinical significance. Additionally, the hypertensive pregnant women (19.5%) were more likely to develop preeclampsia than their controls (3.8%; 0.002).

Variable	HTN (N = 82)	Non-HTN (N = 82)	P-value
Maternal age (mean ± SD weeks)	36,9 ± 0,6	31,5 ± 0,7	< 0.001
Gravida (median)	4	4	0.2
Para (median)	2	2	0.1
Comorbidities prevalence (%)	48,8%	30,5%	0.017
Diabetes Mellitus (%)	34,1%	14,6%	0.004
Cardiac diseases (%)	6,1%	1,2%	0.096
Renal diseases (%)	3,7%	2,4%	0.65
Autoimmune diseases (%)	3,7%	2,4%	0.65
Other endocrine diseases (%)	6,1%	4,9%	0.73
GDM	14,6%	11,3%	0.54
PET	19,5%	3,8%	0.002



Graph 1: Comorbidities in the Hypertensive groups.



Graph 2: Comorbidities in the Non-Hypertensive group.

## Conclusion

As maternal age advances, there is an increased incidence of hypertension and other comorbidities including diabetes, cardiac disease, and renal disease. Thus, a multidisciplinary approach is warranted for the optimal clinical management of such cohort of patients.

## Disclosure

I confirm the originality of the research work and that all fellow authors/researchers of this research work are aware and in agreement of this abstract submission.

## Bibliography

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