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INTRODUCTION

Hypertensive pregnancies and established preeclampsia have severe long-term consequences for both mothers and children by increasing cardiovascular risk, compromising renal function and causing premature death. As a consequence, we established counseling early after severe preeclampsia without objective criteria for its sustainability.

HYPOTHESIS

We hypothesized that these young women will follow a healthy lifestyle and have careful follow-up visits with their general practitioner given their high risk status.

METHODS

1. Assessment in n=48 women (set 1)
2. Long-term assessment (set 2):

We identified 354 consecutive women attending our post-severe preeclampsia outpatient clinics in between 2003 and 2011 1 to 8 y after the index pregnancies. Of these, 189 were accessible for a telephone consultation. Information on medical contacts, further pregnancies and cardiovascular risk control were obtained. Medical records were reviewed to characterize the cardiovascular risk profile at initial counseling.

Content of counseling:

1. Postpartal situation
2. Origin of preeclampsia
3. Assessment and optimizing of maternal cardiovascular risk factors
4. Counseling for the child's situation, future risk prevention
5. Assessment of recurrent preeclampsia risk

RESULTS

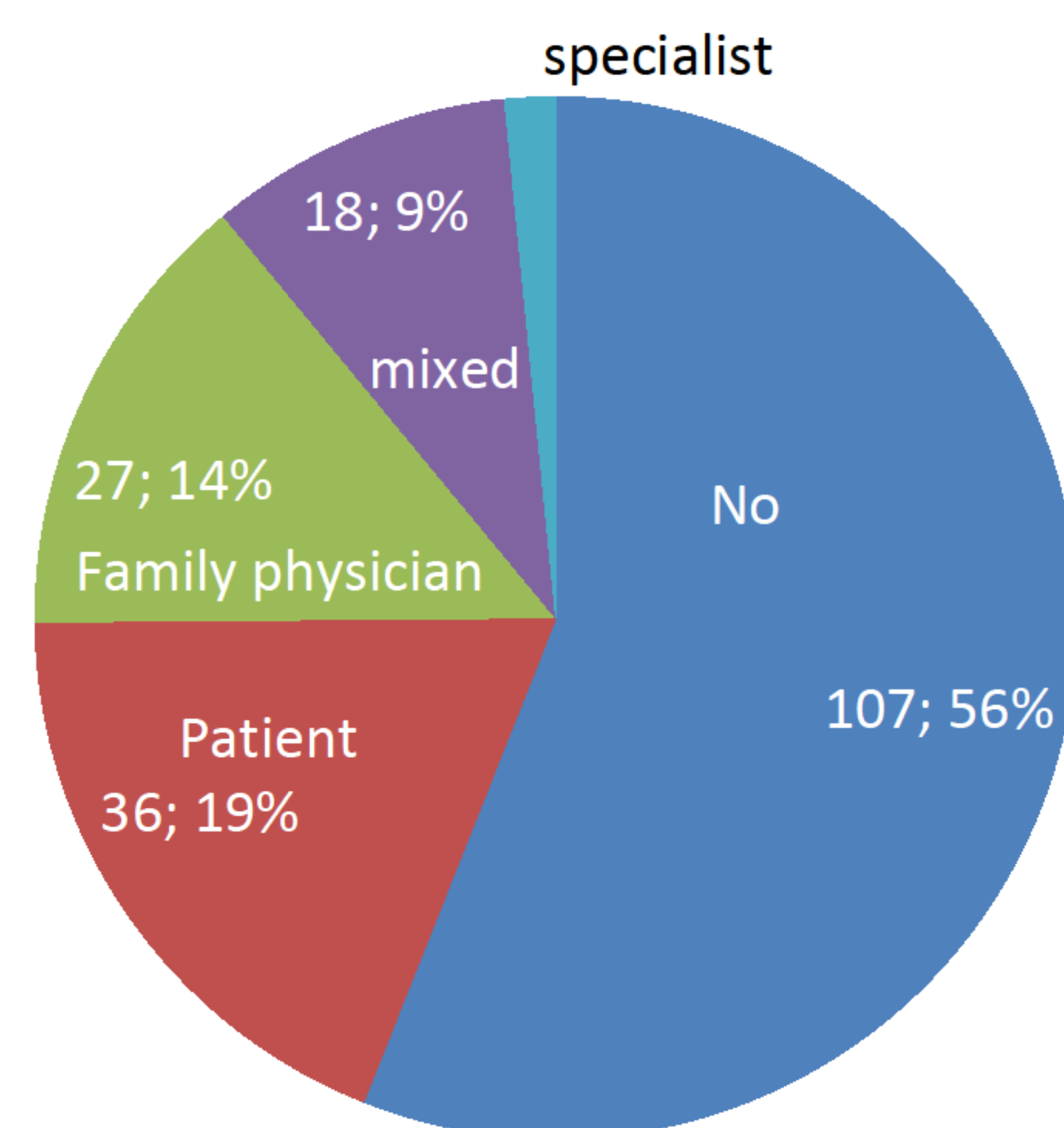
Risk factor	Assessed	Pathologic	X ± SEM	Reference range
Family hx	40/48	18		
PE hx	44/48	02		
CVD hx	44/48	14		
SGA mother	6/48	16		
Hypertension	48/48	52		
Chronic	48/48	13		
Office	48/48	15		
DM	48/48	02		
Smoking	44/48	30		
Pregnancies complicated by				
PIH	48/48	0	1.56±0.19	
PE	48/48	0	1.27±0.11	
BMI [kg/m ²]	40/48	30	25.7±0.8	
HbA _{1c}	40/48	0	3.33±0.14	<6.00
Cholesterol [mmol/l]	44/48	48	5.13±0.16	<5.00
HDL	44/48	7	1.75±0.09	>1.00
LDL	43/48	48	3.25±0.15	<3.00
CRP [mg/l]	42/48	36		<3.00
Albuminuria [mg/mmol creatinine]	39/48	51		

2,5±0,2 risk factors 6 weeks after severe preeclampsia in set 1

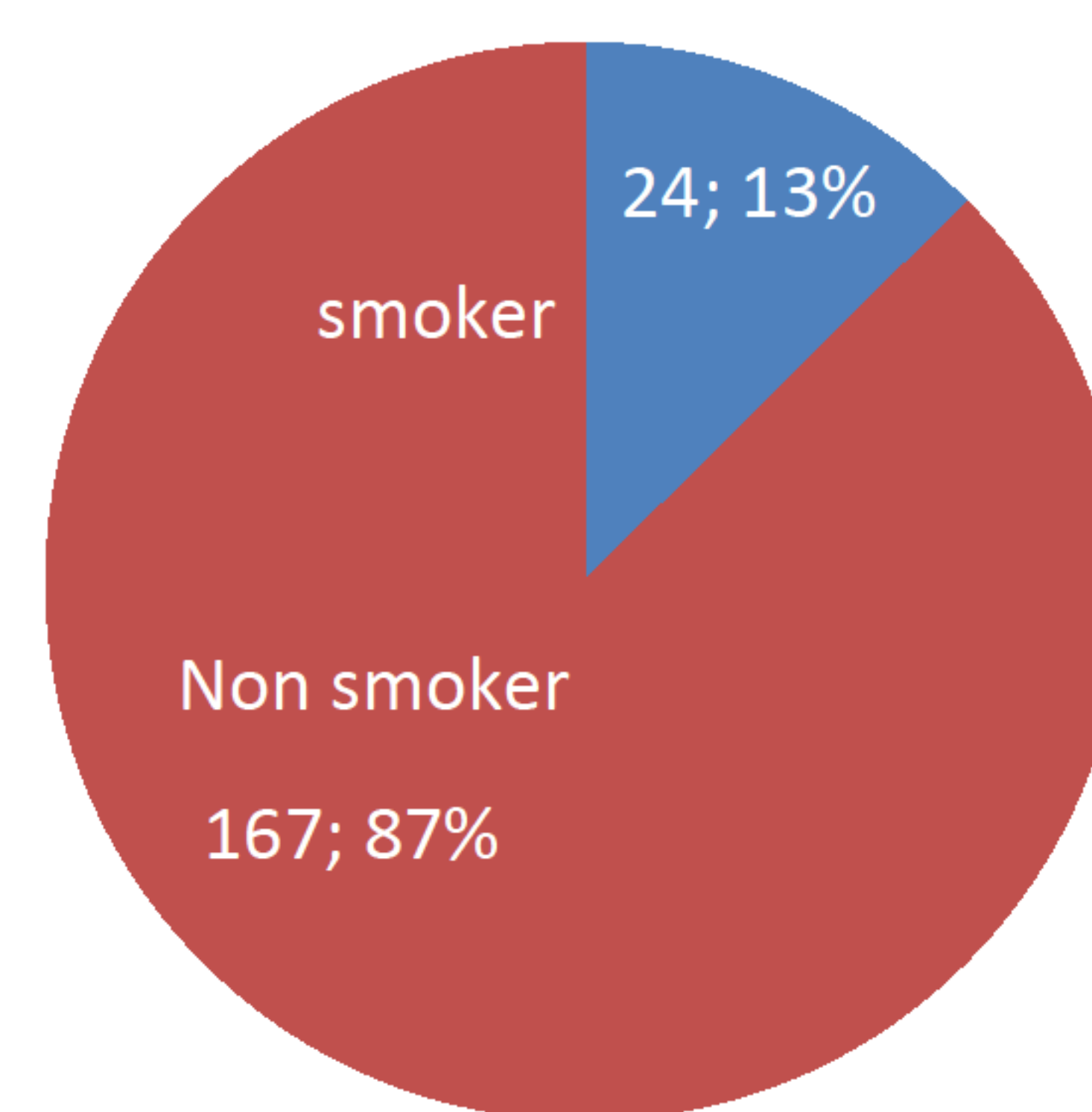
Set 2 – Long-term assessment:

During the initial work-up, sufficient information on family history of diseases with enhanced cardiovascular risk was obtained in 86 % of the patients and positive in 55 %. A family history for preeclampsia was present in 19%. At counseling, the personal history revealed obesity, diabetes mellitus, smoking, chronic hypertension, prior cardiovascular disease, and pregnancy-induced hypertension in 47%, 1%, 9%, 5%, 0%, and 6%, respectively. Clinical chemistry revealed elevated total cholesterol, LDL-cholesterol, HbA_{1c}, and microalbuminuria in 52, 53%, 3%, and 38%, respectively. During follow-up blood pressure and dyslipidemia was controlled in 44% and 35%, obesity persisted in 37%, 13% continued to smoke, and 4% of the women suffered from diabetes or manifest cardiovascular disease. During the follow-up 44% of the women had at least one additional pregnancy with 33% of the completed pregnancies again developing preeclampsia irrespective of the use of low-dose aspirin and calcium.

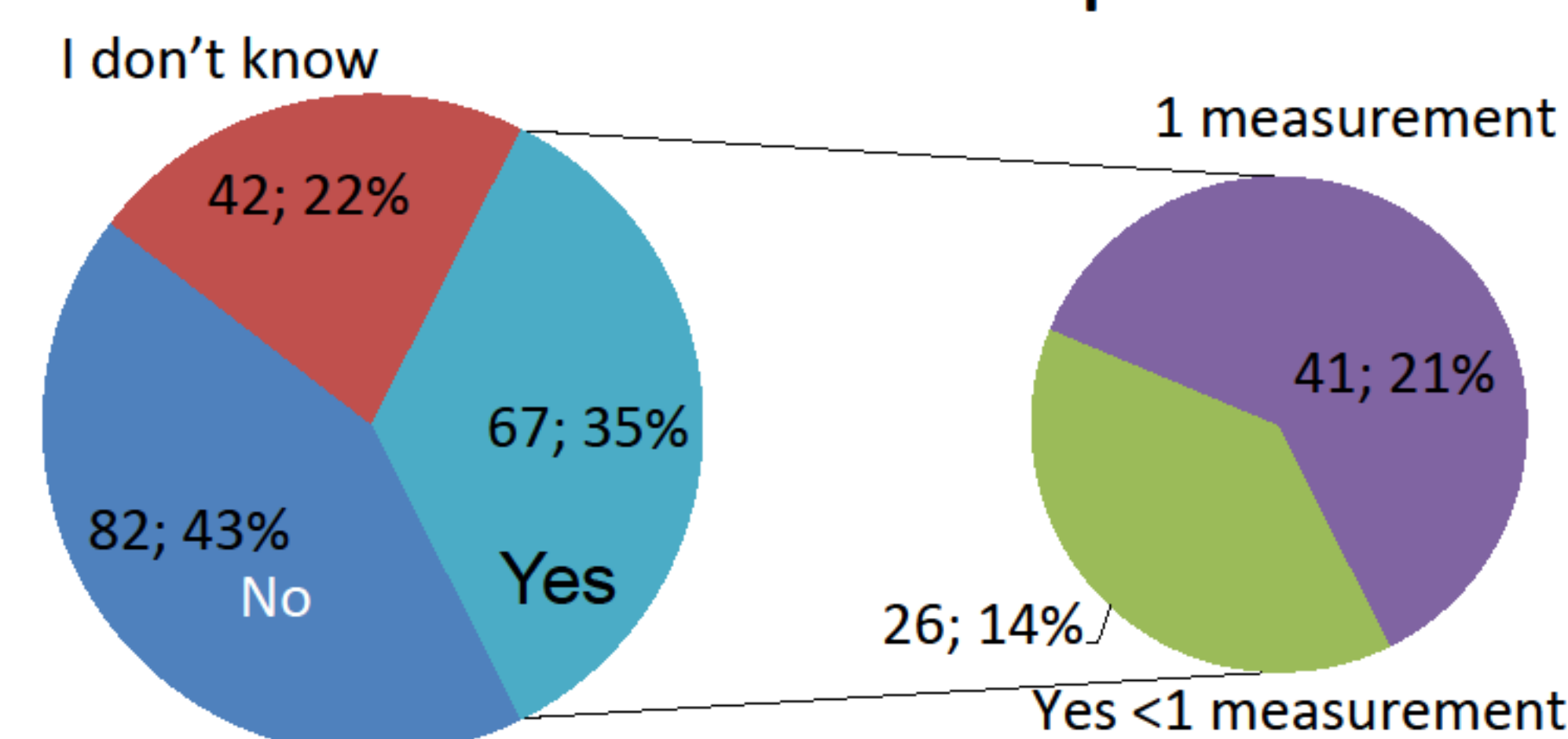
Blood pressure measurements on follow-up



Smoking behaviour



Cholesterol follow-up



CONCLUSION

Despite intense counseling, the renal and cardiovascular high risk disease preeclampsia does motivate neither the patients nor the medical care-givers to provide appropriate health protection. The unexpected high rate of recurrent disease further exposes the women to future life-threatening health hazards such as chronic kidney disease. Further studies closely involving the patients and their doctors are urgently warranted.