

# Primary aldosteronism and pregnancy

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## Objectives:

Primary aldosteronism (PA) may present in younger age and it may so complicate pregnancy if not diagnosed early. Our aim was to identify patients in whom PA was diagnosed after pregnancy and to seek for possible complications during pregnancy.

## Methods:

Retrospective analysis of female patients with PA treated at our institution in whom PA was diagnosed after pregnancy.

## Results:

Eleven subjects with PA were identified. All subjects presented with profound hypokalemia a significantly increased aldosterone levels. In 10 cases, final diagnosis of aldosterone-producing adenoma was made, one subject presented with idiopathic aldosteronism.

Table 1 Baseline characteristics of subjects with primary aldosteronism

Patient #	Age at diagnosis (years)	Duration of hypertension (years)	Severity of hypertension	Symptoms	Lowest K <sup>+</sup> (mmol/l)	Aldosterone (ng/dl)	Plasma renin activity/Plasma renin (µg/l/h//pg/ml)	Final diagnosis	K <sup>+</sup> after operation (mmol/l)	Aldosterone after operation (ng/dl)	Hypertension after operation
1	29	0.5	severe	headache	2.9	47.1	0.6 (PRA)	APA	4.6	2.3	mild
2	36	0.75	moderate	0	2.6	48.9	0.58 (R)	APA	3.8	4.7	normotension
3	32	4	mild	tiredness	2.8	53.4	0.34 (PRA)	APA	4.7	2	normotension
4	39	6	mild	tiredness, cramps	2.4	38.6	3.3 (R)	APA	4.7	9.7	normotension
5	38	12	moderate	tiredness, cramps	1.75	63.8	4.8(R)	APA	5.1	3.4	mild
6	33	6	moderate	tiredness, ankle swellings	2.3	99.2	2.8 (R)	APA	3.8	2.6	normotension
7	33	7	moderate	0	2.8	82.9	2.1(R)	APA	4	2.2	normotension
8	31	5	severe	0	2.9	34.8	0.59 (PRA)	APA	4.7	3.7	moderate
9	28	3	moderate	tiredness	3.2	37.8	0.26 (PRA)	APA	4.5	8.6	normotension
10	22	3	severe	0	2.3	64.1	0.15 (PRA)	APA	4.1	2.5	normotension
11	31	7	moderate	0	2.7	73.8	0.29 (PRA)	IHA			

Table 2 Pregnancy related complications in subjects with primary aldosteronism

Patient #	Age at gravidity (years)	Hypertension before pregnancy (years)	Blood pressure during pregnancy	Gestational week at delivery	Delivery	Complications	Hypertension after puerperium
1	27	0	mild gestational hypertension	40	spontaneous	0	no
2	35	0	mild gestational hypertension	40	cesarean section	herpes vaginalis	yes
3	28	2	significant BP increase during the 8 <sup>th</sup> month	36	cesarean section	discharge of amniotic fluid	yes
4	34	1	mild BP increase	40	spontaneous	0	yes
	36	3	mild BP increase at the end of gravidity	41	spontaneous (induction)	IUGR	yes
5	26	0	moderate gestational hypertension	36	cesarean section	preeclampsia	yes
6	27	0	mild gestational hypertension	40	spontaneous		yes
	30	3	moderate BP increase	40	spontaneous		yes
7	29	4	gradual BP elevation	27	cesarean section	preeclampsia	yes
8	26	3	moderate BP increase	39	cesarean section	preeclampsia	yes
9	25	0	BP elevation at the end of gravidity	39	cesarean section	preeclampsia	yes
10	29	5	BP decompensation during the 2 <sup>nd</sup> trimester	33	cesarean section	preeclampsia	yes
11	22	3	BP decompensation during the 2 <sup>nd</sup> trimester	31	cesarean section	preeclampsia	yes

## Conclusions:

Apart from hypertension, the most frequent pregnancy-related complication of PA is preeclampsia, sometimes leading to very preterm delivery. The best prevention of these complications is only early diagnosis of PA, in these particular hypertensive cases the awareness of hypokalemia. In some cases, BP elevation during pregnancy was the first presentation of PA.

