



NONFUNCTIONAL ADRENAL INCIDENTALOMAS AND CARDIOMETABOLIC RISK

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Background

Incidentally discovered adrenal tumours have become a common clinical problem. The presence of an adrenal incidentalomas has been associated with an increase incidence of several cardiovascular risk factors. These abnormalities are more frequent in patients with clinical and subclinical hypercortisolism, nevertheless some studies have reported an association between nonfunctioning adrenal incidentalomas (NFAIs) with increased insulin resistance and cardiovascular risk.

Aim

Identify features of cardiometabolic risk in patients with NFAIs.

Methods

- 51 patients with adrenal incidentaloma and negative screening testes to rule out catecholamine, mineralocorticoid and glucocorticoid overproduction were included in the study.
- All patients underwent radiologic investigation with computed tomography. For hormonal investigation were measured: 24h urinary free cortisol (UFC), serum cortisol concentration after overnight 1mg dexamethasone suppression test (cut-off 1,8uf/dl), morning and late-night salivary cortisol; plasma aldosterone /renin ratio (ARR) and 24h urinary fractionated metanephrines and plasma free metanephrines .
- Features such as BMI, hypertension, abnormal parameters of glucose and lipid metabolism were assessed.
- Cardiovascular risk was estimated with SCORE (The European Systematic Coronary Risk Evaluation).
- Retrospective analysis based on clinical parameters and results of imaging and laboratory procedures was conducted.

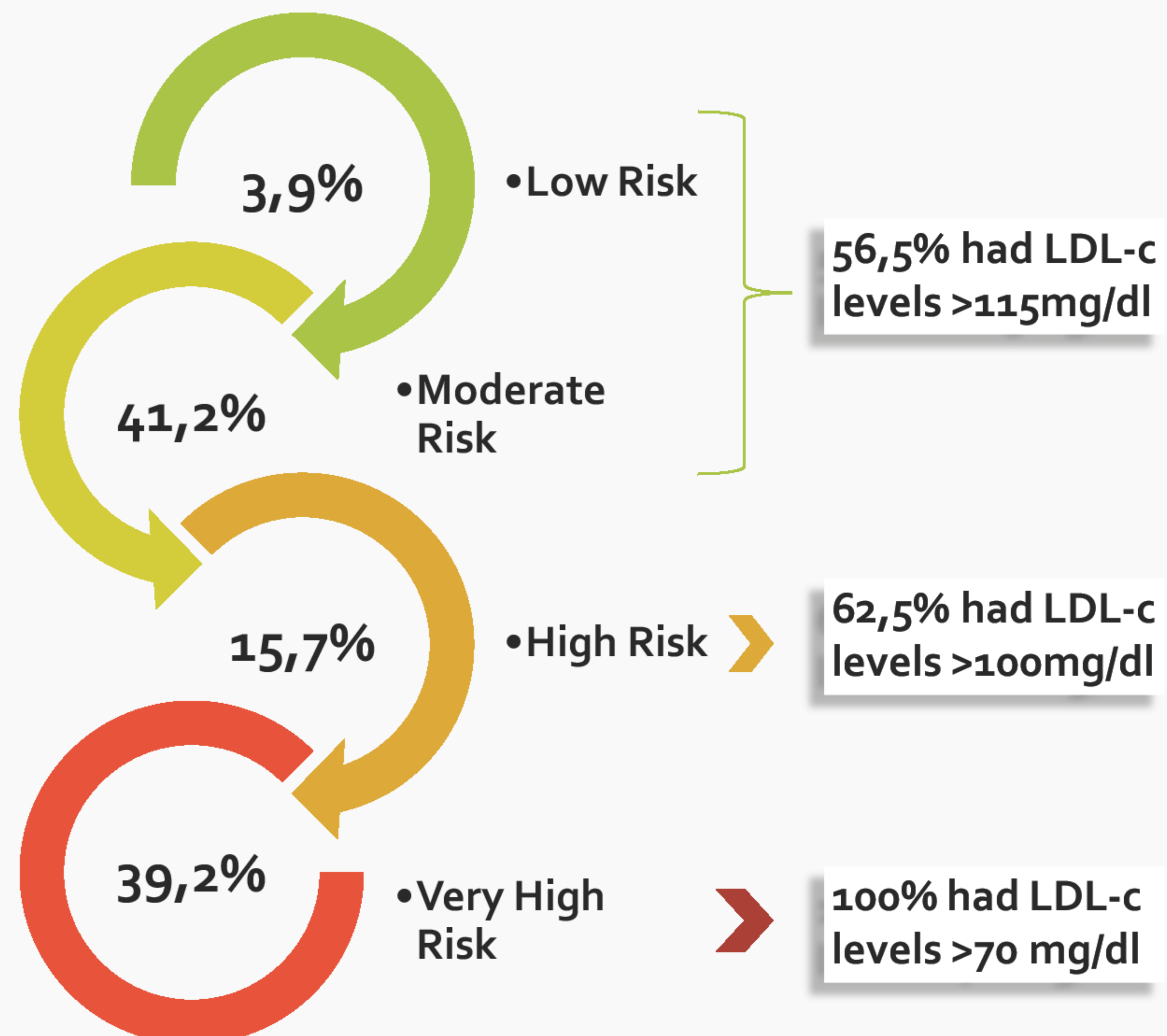
Results

Population baseline characteristics N= 51	
Age (years) *	51 +- 10
Females (%)	67,0%
Adrenal mass size (mm) *	21,5 +- 9,3
Unilateral / Bilateral Incidentaloma (%)	60,0 % / 30,0%

* Mean (SD)

Cardiovascular Risk Factors N= 51	
	%
Excessive body mass	66,0 %
- overweight	38,3 %
- obese	27,7 %
Hypertension	60,0 %
Type 2 Diabetes	29,4%
Impaired fasting glucose	27,5%

According to SCORE system:



Conclusions

Patients with NFAIs have high cardiometabolic risk. Cardiovascular features should be screened during their initial workup and follow-up to identify those at risk and implement the appropriate interventions.