Long-term Cardiometabolic Morbidity In Young Adults With Classic 21-Hydroxylase Deficiency Congenital Adrenal Hyperplasia

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I-CAH Registry

INTRODUCTION

Congenital adrenal hyperplasia (CAH) and long-term glucocorticoid treatment may be associated with an increased risk of developing cardiometabolic sequelae: abnormal glucose homeostasis, hyperlipidaemia, hypertension, cardiovascular disease (CV), obesity and osteoporosis.

AIM

- To study the current practice amongst expert centres for assessing cardiometabolic outcomes (type 2 diabetes, hyperlipidaemia, hypertension, cardiovascular disease, obesity, osteoporosis) in adult patients with 21-hydroxylase deficiency CAH
- To assess the prevalence of cardiometabolic morbidity among centres

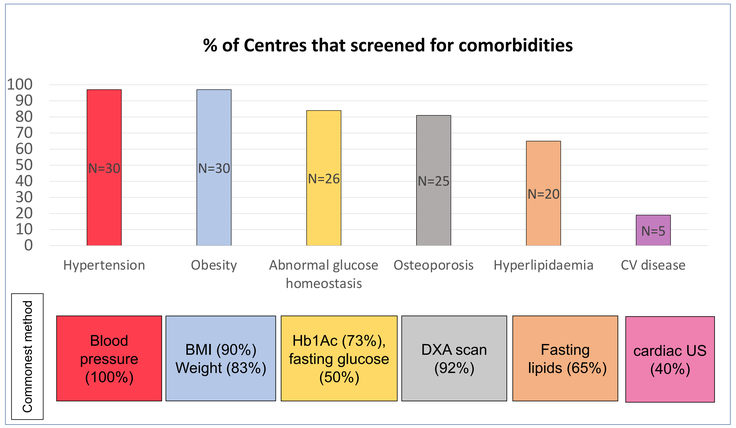
METHOD

- Data were collected using a structured questionnaire sent to 46 centres managing adults with CAH within three overlapping networks: I-CAH Registry, CaHASE Consortium UK and Endo-ERN.
- Further information asked to centres included current therapy and surveillance practice of adults with CAH with emphasis on cardiometabolic conditions.

RESULTS

The Practice Of Monitoring Cardiometabolic Morbidity

- 31 centres from 15 countries replied to the Survey: 97% screen patients for hypertension and obesity, 84% for abnormal glucose homeostasis, 81% for osteoporosis, 65% for hyperlipidaemia, 19% for other CV disease.



The Extent Of Cardiometabolic Morbidity

- Data on 255 adults (median age of 32 yrs, range 19-94) were reported from 13 centres
- Of 255, 78 (31%) were receiving drug therapy for a cardiometabolic morbidity and, of these, 13 (17%) were treated for 2 or more comorbidities.

Comorbidity	N (%) of pt affected	N (%) of pt affected on therapy	Median age (yrs) at start therapy (range)
Obesity/overweight	93 (36%)	3 (3%)	27 (17, 55)
Osteoporosis/osteopaenia	58 (23%)	43 (74%)	34 (18, 63)
Hyperlipidaemia	50 (20%)	17 (34%)	55 (19, 79)
Type2DM/hyperinsulinaemia	20 (8%)	18 (90%)	27 (14, 78)
Hypertension	18 (7%)	10 (56%)	55 (39, 71)
CV disease	10 (4%)	8 (80%)	65 (55, 72)

- The following table details the range of medications used for each morbidity category

Abnormal glucose homeostasis	Hyperlipidaemia	Hypertension	Cardiovascular disease	Obesity	Osteoporosis
Metformin (n=14)	Atorvastatin (n=6)	Atenolol (n=3)	ASA (n=4)	Orlistat (n=1)	Vitamin D (n=17)
Insulin (n=3)	Simvastatin (n=5)	Enalapril (n=3)	Metoprolol (n=2)	Sibutramine (n=1)	Calcium (n=15)
	Pravastatin (n=3)	Amlodipine (n=3)	Long acting nitroglycerin (n=2)	Bariatric surgery (n=1)	Alendronate (n=2)
	Fenofibrate (n=1)	Ramipril (n=2)	Clopidogrel (n=1)		Risedronate (n=1)
	Rovastation/Ezetimibe (n=1)	Nifedipine (n=1)	Ticagrelor (n=1)		
		Losartan (n=1)	Warfarin (n=1)		
		Furosemide (n=1)	Rivoroxaban (n=1)		
			Surgery (n=1)		

CONCLUSIONS

- Cardiometabolic morbidities are not uncommon in adults with CAH.
- There is a need for greater standardisation of the screening for these morbidities.
- There is a need to optimize therapy through routine collection of standardised data.

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