was >99th percentile in the four limbs. The retina was normal. She performed the following exams, all normal: blood cell count, blood urea, creatinin, ions, lipid profile, thyroid function, rennin, aldosterone, urine sediment and urinary catecholamins, metanefrins, homovanillic and vanilmandelic acid. The cardiac and abdominal ultrasounds were also normal. The renal Doppler ultrasound was "not suggestive of renovascular disease". With these results, she performed a renal cintigraphy with DMSA that showed a "hipofixation of the contrast in the superior half of the left upper renal pole". After it, she performed a renal arteriography, which confirmed the left renal artery stenosis and an angioplasty was made, with success.

Conclusions: This diagnosis was delayed by the normality of some exams, specially the renal Doppler ultrasound and the plasmatic renin activity. However, it is important to underline that if the suspicion index is high, the persistence on the evaluation should involve the second line exams, like in this case.

988

GROWTH MONITORING IN CHRONIC KIDNEY DISEASE

R. Jayaraman, J. van der Voort

Nephrology, University Hospital of Wales, Cardiff, UK

Background and aims: Growth failure is a common feature in Chronic Kidney Disease (CKD) and frequently leads to decreased adult height. Malnutrition, biochemical abnormalities and reduced sensitivity to growth hormone (GH) contribute to growth failure. We compared our practice to the standards set by Renal Association for growth monitoring and National guidelines on GH use.

Methods: Growth monitoring in children with GFR < 20ml/min/1.73m² was reviewed over a period of 2 years from 2008-2009. 16 cases were identified. Case notes and growth charts were reviewed.

Results: 4/16 (25%) children did not have height and weight plotted during every clinic visit as recommended. All children < 2 years old had their head circumference plotted.

82% children had 3 monthly dietary review as recommended.

10/16(62.5%) children had Parathyroid hormone (PTH) > 15pmol/L (3 x upper limit) and 4/16(25%) had bicarbonate < 20mmol/L.

50% children were referred to growth clinic appropriately.

7/16(43%) had height < 3rd centile and 5/16(31%) had height velocity < 3rd centile. 4/16 children (25%) had both height and height velocity < 3rd centile. Of these 2 children were prescribed GH, one child was only recently referred to growth clinic and one child is being monitored as PTH level is high.

Conclusion: Growth monitoring could be improved to meet Renal Association recommendations. This analysis shows that biochemical control in advanced CKD is difficult to achieve despite dietary and medical manipulations. Growth Hormone therapy was prescribed appropriately and can only be considered after nutrition optimised and metabolic abnormalities corrected.

989

MEASUREMENT OF AORTIC PULSE WAVE VELOCITY IN CHILDREN AND ADOLESCENTS - VALIDATION OF THE VICORDER DEVICE IN HEALTHY INDIVIDUALS

D. Kracht¹, S. Baig², A. Doyon³, C. Jacobi¹, F. Schaefer³, E. Wühl³, B. Schmidt², A. Melk¹

¹Paediatric Nephrology, ²Nephrology, Hannover Medical School, Hannover, ³Paediatric Nephrology, University Hospital Heidelberg, Heidelberg, Germany

Background and aims: Aortic pulse wave velocity (aPWV) estimates aortic stiffness and predicts cardiovascular mortality risk in adults. Since children with kidney disease are at high risk for cardiovascular mortality later in life, it would be important to detect advanced arterial stiffening early. There are different ways to assess aPWV. This study compares aPWV values of young individuals measured by applanation tonometry (SphygmoCor) and with a new oscillometric device (Vicorder).

Methods: aPWV in 131 healthy children (age 6-18 years) was measured 1. by sequential tonometry and 2. by oscillometry in a synchronic manner. SphygmoCor aPWV was calculated with distance 1 (dist.1) [(Suprasternal notch(SSN) to Umbilicus(Umb)) + (Umb to A.fem.) - (SSN to A.car.)]. For Vicorder 3 additional distances were measured and used: dist.2 [(SSN to Umb) + (Umb