

AR-V7 specific genes. A comparison of AR-V7 specific genes common to the LNCaP and VCaP models as well as to publicly available data sets for LN-95 and 22RV1 AR-V7 signatures, show a strong correlation with CRPC compared to primary tumors when analyzed in the Grasso data set.

## Diabetes Mellitus and Glucose Metabolism

### DIABETES COMPLICATIONS I

#### *Psychosocial Benefits of Using Basal-IQ® Predictive Low Glucose Suspend Technology in a Real-World Setting: Results From Pediatric Patients With Type 1 Diabetes*

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### SAT-LB113

Recent literature has highlighted remarkable clinical benefits of the Basal-IQ Predictive Low Glucose Suspend (PLGS) technology for both pediatric and adult patients with type 1 diabetes (PwT1D). Although less frequently acknowledged in the literature, psychosocial benefits and other patient-reported outcomes (PROs) related to this technology, are critical to its sustained and satisfactory use. For purposes of this study, we analyzed pediatric PwT1Ds (n=123) who had recently started using the t:slim X2 insulin pump with Basal-IQ technology (Tandem Diabetes Care). These pediatric users were part of a larger recruited sample that also included adults with T1D (not described here). Amongst other clinical and demographic measures, pediatric PwT1Ds completed the Diabetes Impact and Device Satisfaction (DIDS) scale at baseline and then again at 6 months post-assessment (PA). The DIDS is a brief, reliable, and validated measure to ascertain device-specific satisfaction as well as impact of diabetes management in PwT1D. Pre-Post differences on DIDS were analyzed using repeated measures analysis of variance. Mean age of the pediatric sample was 12.25 years, female=45%, mean HbA1c=7.62%. At baseline, 91% used CGM, 27% used multiple daily injections, and 73% used insulin pumps as their therapy method. Parents/caregivers completed the DIDS on behalf of their child in most cases (92%). At PA, pediatric PwT1Ds, demonstrated significant changes on both subscales of the DIDS. Significant improvements were observed for device-related satisfaction (DS) ( $p<.001$ ) whereas significant reduction was noted for diabetes-related impact (DI) ( $p<.01$ ) indicating reduced burden of diabetes on daily life. These findings were noted regardless of patients' baseline insulin delivery methods (MDI or insulin pump). For DS, at PA, patients reported the most improvement on items relating to "satisfaction with insulin delivery device" (29% increase,  $p<.001$ ) and "hassle to use" (58% decrease,  $p<.001$ ). For DI, items indicating the most reduction of diabetes impact were "worry about going low" (36% decrease,  $p<.001$ ) and "wake up at night to treat low BG" (27% decrease,  $p<.001$ ). These findings highlighted robust real-world evidence for psychosocial benefits of Basal-IQ technology for pediatric patients and their parents/caregivers. Using psychosocial PROs while evaluating medical devices and technologies is critical as they improve our

understanding of patients' experiences with these systems and their impact on quality of life. These aspects may not always be reflected in patients' clinical outcomes but are essential for determining long term use and acceptance of new treatments and management regimens.

## Bone and Mineral Metabolism

### BONE AND MINERAL CASE REPORTS I

#### *Pseudohypoparathyroidism 1B Presenting in a Woman Aborting With Multiple Cerebral Calcifications*

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Background. Pseudohypoparathyroidism is a heterogeneous condition characterized by hypocalcaemia and hyperphosphatemia as a result of the resistance of the target organ to parathyroid hormone (PTH)<sup>1</sup>. It is classified into several different entities (1A, 1B, 1C AND 2) according to molecular and clinical causes. PHP1B has resistance to PTH, normal levels of Gsa activity and has no clear signs of hereditary Albright osteodystrophy (AHO) or other hormonal resistance.<sup>2</sup> Clinical case. A 26-year-old woman was admitted to the emergency service due to an abortion and severe hypocalcemia. Background: generalized tonic-clonic seizures and hypocalcemia for nine years without treatment. The physical exam showed Chvostek and Trousseau, and round face. Its height is 148 cm, weight 60 kg, BMI of 27 kg/m<sup>2</sup>, without clinical features of AHO. Analytics reported Calcium 4.6 mg / dl (8.5-10.5),  $\beta$ HCG 1795 mIU / ml (<10), PTH 206 pg / ml (15-65), phosphorus 7.35 mg / dl (2.5-4.9) Creatinine 0.57 mg / dl, magnesium 2.02 mg / dl, 25-OH-D3 29ng/ml (>30), TSH 4.2uIU/ml (0.27-4.20), Hb 10.6 mg/dl. A brain CT scan showed calcifications in the basal ganglia (thick annular), subcortical area (crescent) and cerebellar hemispheres. Renal and thyroid ultrasound without alterations. Radiographs of four limbs and skull found no radiological signs of AHO. Ophthalmologic evaluation revealed bilateral cataract. During hospitalization she underwent curettage, was treated with calcium gluconate, then calcium and calcitriol supplements. At follow-up, serum and urine calcium levels were monitored for optimal treatment. Conclusions. We report a patient with typical biochemical findings of PHP and in the absence of AHO it would be classified as 1B. The importance of early recognition and a mandatory multidisciplinary approach offer a better prognosis avoiding extensive brain calcifications, seizures and obstetric complications. The long-term treatment of hypocalcemia associated with resistance to PTH is similar but generally more aggressive than that of primary hypoparathyroidism. 1. Linglart A, Levine M, Juppner H. Pseudohypoparathyroidism. *Endocrinol Metab Clin North Am* 2018; 47: 865-888. 2. Mantovani G, Bastepe M, et al. Diagnosis and treatment of pseudohypoparathyroidism and related disorders: first declaration of international consensus. *Nat Rev Endocrinol*. 2018; 14 (8): 476-500.