

(P-01)

## Late-Onset Congenital Adrenal Hyperplasia Diagnosed at 53 Years of Age

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Our aim was to present a case of late-onset congenital adrenal hyperplasia (LOCAH) diagnosed at 53 years of age because of bilateral surrenal adenoma (BSA).

At 53 years of age, 11 years post-menopausal woman was referred to our out-patient clinic due to BSA. Patient's physical examination was unremarkable and Ferriman-Gallwey score was 4. There was no history of diabetes or hypertension. Adenomatous lesions were detected in the right adrenal gland corpus (10 mm in diameter) and left adrenal gland corpus (20 mm in diameter) demonstrated as out-of-phase sequence signal loss on abdominal magnetic resonance imaging (MRI). There was no significant increase in lesion diameter from previous MRI.

Hormonal function tests for Cushing's syndrome, pheochromocytoma, and Conn's syndrome were negative. The patient have two sons after spontaneous pregnancy. She has no hirsutism. Basal level of 17-hydroxy progesterone (17-OH-P) was 6.53 ng/mL thus 250 mcg adrenocorticotrophic hormone stimulation test was ordered. Test results were cortisol 0' = 8 ug/dL, cortisol 30' = 9.16 ug/dL, cortisol 60' = 10.12 ug/dL, 17-OH-P 0' = 11.43 ng/mL, 17-OH-P 30' = 42.85 ng/mL, and 17-OH-P 60' > 50 ng/mL. After the test, LOCAH and adrenal insufficiency were diagnosed. Hydrocortisone (25 mg/day) treatment was started. CYP21A2 mutation analysis revealed homozygous mutations of p.Arg339His (c.1016 G > A) in the exon 8 and p.Pro453Ser (c.1357 C > T) in the 10<sup>th</sup> exon. Test for patient's family members was ordered.

Patients followed with BSA should be investigated for LOCAH, even postmenopausal ones.

(P-02)

## 8Q22.3-Q24.23 Duplication: A Case Report

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We present a rare case of 8q duplication in a patient with oral frenulum history and absence of mental retardation.

A 7-year-old girl was referred to our clinic for hypertrichosis and dysmorphic facial appearance. On physical examination, hypertrichosis, upslanted palpebral fissures, epicanthus, hypertelorism, microretrognathia, high and broad nasal root, distinct glabella, fine upper lip, broad and flat philtrum, and clinodactyly were detected. She had a history of an operation for oral frenulum. Haemogram, routine biochemistry, hormone profiles, karyotype analysis, and brain magnetic resonance imaging (MRI) as well as ophthalmology, otolaryngology, and child psychiatry consultations were requested.

Hemogram, routine biochemistry, hormone profiles, brain MRI results, and the ophthalmologic evaluation were normal. Chronic otitis media was detected on otolaryngologic examination. IQ test score was reported as 95. Chromosome analysis revealed a 46,XX,der(8)add(8)(q24.1) karyotype. Karyotypes of mother, father, and sister were normal. Array comparative genomic hybridization (aCGH) was done to determine where the extra material came from. A duplication of 35.9 Mb at 8q22.3-q24.23 was detected.

Our case had similar phenotypic features to 8q duplication cases, such as hypertrichosis, hypertelorism, microretrognathia, and long philtrum. However, to our knowledge, this is the first case of 8q duplication with oral frenulum and without mental retardation.

(P-03)

## Parental View on the Terminology of Disorders of Sex Development

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Disorders of sex development (DSD) is a nomenclature proposed to defeat the discomfort of families and patients. The aim of this study was to investigate the perception and usage of terminology among the parents of DSD patients in our country.

The records of the DSD council between years 2008-2015 were reviewed retrospectively. Parents were contacted through telephone inquiries focusing on the terminology the parents knew and tend to use.

In total, 121 patients were evaluated in monthly meetings of DSD council and 79 inquiries were completed. Median age at diagnosis was 1 year (0-16 years). Forty-one percent of the

patients were diagnosed in the newborn period. Median follow-up was 5 years (1-19 years). Follow-up period was longer than five years in 56%. About half of the families admitted knowing the terms DSD, ambiguous genitalia, indeterminate genitals, and intersex; however, only 2% preferred using DSD, 6% intersex, and 14% ambiguous genitalia. Fifty-two percent of the parents used a disease name in Latin addressing the disorder. Sixty-nine percent who were familiar with the name indeterminate genitals were diagnosed in the neonatal period ( $p=0.046$ ). The clinic mostly involved in the management was related to referring the disease with a name in Latin ( $p=0.024$ ) or as chromosomal abnormality ( $p=0.048$ ).

Parents of DSD patients avoid using any word containing “sex” and prefer disease names in Latin instead. Direct translation and usage of new terminology may not achieve the desired result. Each country has its own social norms, local committees should be employed to develop proper terminology.

(P-05)

### A Male Case of Aromatase Deficiency with a Novel *CYP19A1* Mutation

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Aromatase deficiency (AD) is a rare autosomal recessive disorder caused by *CYP19A1* gene mutations and is characterized by lack of conversion of androgens to estrogens. Men usually present with continuing linear growth after puberty, tall stature, unfused epiphyses, delayed bone age, genu valgum, decreased bone mineral density, obesity, dyslipidemia, liver steatosis, insulin resistance, and impaired fertility. We here report a male case of aromatase deficiency with a novel *CYP19A1* mutation.

A 30-year-old man with a tall stature (192 cm) presented with genu valgum. He complained to grow continuously. X-ray revealed incompletely fused epiphyses. Bone age was compatible with 14 years. Follicle-stimulating hormone and luteinizing hormone and testosterone were in normal ranges, but estradiol was undetectable. Insulin resistance as well as elevated serum alanine aminotransferase, aspartate aminotransferase and

gamma-glutamyl transferase levels were found. Abdominal ultrasonography revealed steatohepatitis. In bone mineral density analysis, Z score was normal. The sperm count and vitality were normal. Sequencing of the *CYP19A1* gene revealed a novel 6-base homozygote deletion in exon 10 (c.1465\_1470del GAAATG). The parents and sister were heterozygous for the same mutation. Estrogen replacement therapy was started.

We report a male patient with AD who had a novel deletion in *CYP19A1* gene. AD is an extremely rare condition. Till recently, all mutations have been in coding exons, mostly in exons 9 and 10. Estrogen replacement in AD has great impact on the recovery of dysplastic bone, lipid, liver, and glucose metabolism, but fails to improve insulin resistance. This will hopefully clarify the link between the deletion and the phenotype.

(P-06)

### CYP11A1 Mutations Result in Various Clinical Phenotypes

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Cytochrome P450 side-chain cleavage enzyme (CYP11A1) is the first enzyme and catalyzes the rate-limiting step of steroidogenesis. CYP11A1 deficiency is associated with adrenal insufficiency (AI) and commonly with a disorder of sex development (DSD) in 46,XY individuals. Our objective was to define the clinical presentation of our patients with CYP11A1 mutations, one of whom had a novel CYP11A1 mutation.

Four patients were presented. Case 2 has been reared as a girl and she has a novel CYP11A1 mutation. Cases 3 and 4 are siblings. Clinical findings are given in Table 1.

These cases demonstrate that CYP11A1 deficiency can be seen in the newborn period or in early childhood as classical or non-classical forms. Normal genital appearance can found in 46,XY patients in non-classic form and this does not exclude life-threatening AI risk.