| 46,XX DSD (MASCULINIZED FEMALE) |

FORMERLY FEMALE PSEUDOHERMAPHRODITE

Congenital Adrenal Hyperplasia (CAH)

21-HYDROXYLASE DEFICIENCY

- Most common form of DSD and 90+% of all CAH
- 46, XY autosomal recessive, ***CYP21A2*** gene loss/mutation on chromosome ***6p21***
- Inability to convert progesterone to 11-deoxycorticosterone and 17-hydroxyprogesterone to 11-deoxycortisol
- May occur in females (majority) or males
    - o Males: ***"Little Hercules"*** - precocious puberty at 2-3 years old with normal genitals; may have salt-wasting from lack of mineralocorticoid
        - * ***Testicular Adrenal Rest Tumors (TART)***: ectopic, hyperplastic adrenal tissue found in the testicle; increases in size with ACTH; usually bilateral and multiple
            - Histologically: appears as Leydig cells without Reinke crystals
            - Tx: ***glucocorticoids decreases ACTH, thus tumor regression***
    - o Females: variable ambiguous genitalia (clitoromegaly to penis); lack secondary female sex characteristics; Mullerian structures present (lack MIS)
- Lab: ***elevated 17-hydroxyprogesterone, androstenedione, ACTH***
- Salt wasting type (75%) – classic form
    - o Lack mineralocorticoid (i.e. aldosterone)
    - o Adrenal crises in first weeks of life and may die
    - o Reason all newborns are screened in USA
- Simple virilization (25%)
    - o Mineralocorticoid activity is present
- Latent Deficiency
    - o Presents at puberty; commonly mistaken for polycystic ovarian