Incontinentia pigmenti

Genetics

-IKBKG (aka NEMO)

-XLD (most male fetuses miscarry); 65% de novo

Clinical findings/Dysmorphic features

-Major: Four stages of skin changes: 1) erythema, 2) blister, 3) hyperpigmented streaks, 4) atrophic skin patches

-Minor: small or malformed teeth, alopecia, woolly hair, nail ridging or pitting, retinal neovascularization causing retinal detachment

-Neurologic findings can including seizures, ID, DD

Etiology

-0.6–0.7/1,000,000; at birth of 1.2/100,000 in the EU; female:male ratio is 20:1

Pathogenesis

-Lack of NF-kappa beta activation --> cells are sensitive to proapoptotic signals --> apoptosis

Genetic testing/diagnosis

-Most efficacious molecular genetic testing approach is single-gene testing --> common 11.7-kb IKBKG deletion first --> sequence analysis of IKBKG --> gene-targeted deletion/duplication

-Long-range PCR, southern blot

Others

-Clinical test: free melanin granules if hyperpigmented streak biopsied

-Males with IP have had either a 47,XXY karyotype or somatic mosaicism

-Normal life expectancy for females