56 - OCD

OCD

© SPMM Course Majority of adoption studies show that the risk of alcoholism in adopted children is strongly correlated with their biological parents rather than adoptive parents (3- 4 times higher); no protective effect was noted in being raised away from drinking biological parents (Goodwin 1973). The genetic risk is clearly higher in males and weak in females. Variants in GABRA2 on chromosome 4p have been shown to be associated with alcohol dependence - particularly strongly related to problems with impulse control; the risk allele is also seen in adolescents with conduct disorder and in alcohol dependent persons who are drug dependent. ADH (alcohol dehydrogenase) is the major metabolic enzyme for alcohol, catalyzing its breakdown into acetaldehyde, which is then further metabolized by aldehyde dehydrogenase (ALDH). Both ADH and ALDH have variants associated with the "flushing" reaction to alcohol. The strongest finding with regard to alcoholism is in ADH4, which appears to be associated with the early onset of regular drinking. A meta-analysis of 21 studies shows an increased risk of alcoholism of 50–100% of persons carrying the A1 allele of DRD2. However, recent work has questioned whether this polymorphism may actually be reflecting variation in a gene next to DRD2. OCD Early onset suggests higher genetic risk for family members; some studies suggest increased risk only in the case of early age at onset (generally defined as before 18 years) [www.nchpeg.org]. Fathers were three times as likely as mothers to receive a diagnosis of OCD for probands with severe childhood OCD. Increased severity and chronicity appear to increase risk Risk to 1st degree relatives: Onset before age 18: range of ~10-35% Onset after age 18: no increased risk to ~15% MZ Twin concordance: 53-87% DZ Twin concordance: 22-47%

Family History Increased Risk for Offspring General Population Risk Unipolar depression Unipolar 2-fold (16%); Bipolar 4-fold (4%) 6% Bipolar depression Unipolar 2-3 fold (16%); Bipolar 8 to 9-fold (9%) 1% Schizophrenia (SZ) Unipolar - 2-fold (16%); Bipolar -4-fold (4%) 1% Alcoholism 5-fold (27% for males, 5% for females) 5% males, 1% females Panic disorder 12-fold (6%) 0.5% Tourette's syndrome 100-fold (25%) 0.25% Alzheimer's disease 5-fold (15%) at age 75 3% Attentiondeficit/hyperactivity disorder 5-fold (15%) 3% Anorexia nervosa 10-fold (5%) 0.5% Adapted from Tsuang D, Faraone SV, Tsuang MT. Psychiatric genetic counseling. In: Floyd EB, David JK (eds). Psychopharmacology: The Fourth Generation of Progress. New York: Raven Press, 1995.

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