

REFRACTORINESS OF CHRONIC MIGRAINE: POSSIBLE RISK FACTORS AND SOME WAY-OUT

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Background. Migraine (M) refractoriness might depend on prolonged exposure to receptor agonist/ antagonist. The condition results in compensatory changes in receptor number/affinity, say up or down-regulation. The latter leads to tolerance and partakes into iatrogenic refractoriness.
Aims. Non-iatrogenic refractoriness might be linked to epigenetic-polygenic factors routed by stress
Methods. Epidemiology: cross-sectional observation in Italian ethnicity subjects: 270 chronic refractory M, 270 severe M without aura (7-8 attacks/month), 274 controls, recruited in religious, cultural circlesBiochemistry: Samples obtained from 75 chronic M (age mean 35.2+2.8SD) versus 80 controls (age 35.3+2.9SD). Sampling follows 7-days wash-out or 2-months wash-out in case of anti-CGRP mAbs, Rescue Treatment: Diclofenac orally or muscularlyStatistic: T-Test, MANOVA, Prevalence Ratio, Poisson Regression
Results. Epidemiology Controls Refractory Severe PRs Chronic M M Age mean 33.4+4.3 33.5+5.4 33.2+4.8PTDS (PCL-5 cut-off 43 2% 85% * 17% 4.7IES cut-off 33)Obesity – BMI >35 15% 70% * 28% 2Eating DisordersEating disorder Scale cut-off 3) 3.3% 86% * 15% 2.6Eat 26 cut-off 28)Severe Insomnia 10% 90% * 40% 1.8(ISI test cut-off 22)Biochemistry: basic of bio-rhythm and stress Controls Refractory Chronic MSerum hr8.00 a.m.Cortisol µg/dL 6.8+3.3SD 5- 122 interindividual variations >20 timesMelatonin pg/mL 28.5+6.2SD 11.3+4.8SD p>0.0001Urine 8 am-8 pm6-sulfatoxymelatonin(Elisa) ng/mL 47.5+19SD 4-48 inter-individual variations >10 times
Conclusions. PTSD and Eating disorders are not frequent pathologies, say >5% in general population, and have high score in positive correlations, which seemingly indicate they are real risk factors. Both significances of positive ratios of relationships and very wide inter-individual variations of both cortisol and 6-sulfatoxymelatonin seem to indicate a role for stress-routed epigenetic-polygenic factors in chronic M refractoriness.