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**326. RESPONSES OF GENETICALLY FEARFUL DOGS TO THE LACTATE TEST: ASSESSMENT OF THE TEST AS PROVOCATIVE INDEX AND APPLICATION IN MECHANISTIC DIAGNOSES.** Overall KL, Dunham AE, Acland G. Department of Clinical Studies (Section of Medicine), School of Veterinary Medicine (Overall) and Department of Biology (Dunham). Department of Clinical Studies (Section of Medicine), University of Pennsylvania, VHUP, 3850 Spruce Street, Philadelphia, PA 19104-6010 USA; Baker Institute for Genetics, Cornell University, College of Veterinary Medicine, Ithaca, NY 14853, USA.

The standard for evaluation of panic disorder in human patients is the lactate sensitivity test for the provocation of panic. This test has not previously been evaluated analogous or homologous natural canine model. Our work evaluates this test in a group of dogs that have been characterized as "nervous" or "shy", and for whom this phenotype is heritable.

Nineteen related dogs for whom a genetic pattern for fearfulness has been identified were evaluated behaviorally and physiologically using the lactate test. Affected dogs display an idiopathic fear and panic response when presented with unfamiliar humans. Responses include shrinking, assumption of a sphinx-like posture, salivation, lacrimation, nasal discharge, and urination. Some of these dogs become rigid. Physiological responses include pupil dilation, tachypnea, and often tachycardia. Full-siblings of these dogs can be unaffected.

All dogs were subjected to 2 tests: the approacher test where a familiar and an unknown human approached the dog, and the lactate test where 0.5 M sodium lactate was infused IV [10 ml/kg] over 20 minutes. Before and after both tests a battery of physiological parameters were measured. Behaviors were assessed through videotape analysis.

Affected dogs differed statistically from their unaffected relatives in all behavioral measures during the approacher test, but there were no group (affected v. unaffected) effects for any of the physiological measures, although there were often significant treatment effects (known v. unknown human approacher). However, the lactate test does an excellent job of predicting both the direction and the magnitude of the effect for the above measures for both affected and unaffected dogs, and the groups are distinguishable on the basis of their response to the lactate test.

**327. BASAL AND STIMULATED LEVELS OF CSF AMINE NEUROTRANSMITTERS PREDICT EXCESSIVE ALCOHOL CONSUMPTION IN GENETICALLY VULNERABLE VERVET MONKEYS.** Palmour RM, Young SN, Ervin FR. Depts Psychiatry & Human Genetics, McGill U, Montréal CANADA H3A 1A1 Behavioural Sciences Foundation, St Kitts.

Approximately 15% of feral vervet monkeys (*C. aethiops* St Kitts) voluntarily consume large quantities of beverage alcohol (Ervin et al., 1990). A factor analysis of pat-

terns of alcohol consumption in over 600 animals repeatedly tested identified three types of stable drinking patterns, which for the purposes of brevity can be characterized as (1) abusive or "binge" drinking, (2) stable heavy drinking and (3) moderate to light social drinking (Palmour et al., submitted). A considerable body of prior evidence suggests that alcohol consumption is heritable. At every age, the offspring of abusive drinkers drink more than the offspring of heavy social drinkers, which in turn drink more than the offspring of non-preferring animals ( $F=45.61$ ,  $p<0.0001$ ).

In 58 alcohol-naive offspring of phenotypically defined parents, we performed alcohol challenge tests to determine the extent to which changes in CSF amine neurotransmitter levels might predict alcohol consumption phenotype, subsequently determined by factor analysis of temporal and quantitative patterns of alcohol consumption. Two factors were extracted, with Factor 2 comprising most of the items which loaded on "binge" drinking. Baseline levels of MHPG ( $F=8.17$ ,  $p<.01$ ) were negatively and the ratio of HIAA/trp ( $F=5.3$ ,  $p<.05$ ) positively correlated with increasing values for Factor 2. The increase in CSF HVA levels 10 (but not 20 or 40) min after gavage administration of 1.6 g/kg ethanol was positively correlated ( $F=5.74$ ,  $p<.02$ ) with increasing values for Factor 1 (congruent with most aspects of heavy drinking).

Supported by the Medical Research Council of Canada, the Fonds de Recherche en Santé du Québec, and Behavioural Sciences Foundation, St Kitts

## K. Miscellaneous Posters

**328. SOME GENEALOGICAL DATA OF PSYCHOTIC DISORDERS WITH SEXUAL CONTENT.** Danielyan KG, Danielyan AK. National Institute of Health, Department of Psychiatry, Psychotherapy & Medical Psychology.

Objectives: Until now in the medical literature the main attention has been paid to the exploration of psychotic disorders with sexual content in a frame of delusions of jealousy and erotomania. The rest of mentioned disorders and their genealogical characteristics remained less explored.

Methods: With the purpose to explore typical features of psychotic disorders with sexual content, as well as their genealogical structure the investigation of 189 patients (102 men and 87 women) was performed. 110 subjects have been diagnosed different types of schizophrenia, and 79 – residual organic psychoses. The age ranged from 38 to 71 years.

Results: Results of our multidisciplinary observations show, that content of psychotic disorders of sexual character both in schizophrenia and residual-organic psychoses mainly are reflected in the content of hallucinatory, delusional and affective-delusional syndromes and have their quite specific forms of occurrence and stereotypes of consequence of syndromes, as well as quite pathognomonic genealogical characteristics. Not depending on fact, whether the psychotic states of sexual content have endogenous or organic nature, they manifest in a form of 1) hallucinations with sexual content; 2) delusions of reference; 3) delusions of jealousy and erotomania; 4) delusions of influence on genitals; 5) d. of pregnancy; 6) nihilistic-hypochondriac delusional ideas; 7) megalomania. Specific features of mentioned endogenous and residual-organic psychotic disorders are revealed also