### P01.43

# DOPAMINE TRANSPORTER GENOTYPES AND IMAGING IN TOURETTE DISORDER

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The here presented study was focused on the possible association of dopamine transporter (DAT1) genotypes with imaging of striatal/cerebellar ratio of dopamine transporter, which was tested by  $[^{123}I]$ - $\beta$ -CIT binding.

Malison et al. (1995) proposed a higher [<sup>123</sup>1]-β-CIT striatal/occipital ratio in patients with Tourette disorder (TD) compared to healthy individuals. In an investigation by Heinz et al. (1998) using the striatal/cerebral ratio no difference between TD patients and controls was detected.

The Cocaine derivate [ $^{123}$ I]- $\beta$ -CIT (2- $\beta$ -corboxymethoxy-3- $\beta$ (iodophenyl)tropane or RTI-55) and single photon emission computed tomography (Spect) were used in our study. Acquisitions were carried out 20 hours postinjection. Regions of interest (ROI) were drawn over the striatum and cerebellum. The ratio of specific over nondisplaceable binding (striatal/cerebellar-1) was determined. This study encompassed 30 patients with TD (21 male, 9 female, mean age 30.97 years  $\pm$  11.2). TD patients gave written informed consent for DNA preparation and genotyping. PCR dopamine transporter (DAT 1) genotyping was carried out. We calculated an association of [ $^{123}$ I]- $\beta$ -CIT binding ratio and DAT 1 genotypes by Kruskal-Wallis rank sum test.

The result of this investigation was a mean [<sup>123</sup>I]- $\beta$ -CIT binding ratio of 10.13 ± 1.62. Two alleles were detected (allele 5 = 440 bp, allele 6 = 480 bp) in our group of patients when genotyping DAT 1. There were 4 patients with DAT 1 genotype 5/5 (13.3%), 11 patients with 5/6 (36.7%) and 15 patients with 6/6 (50%). We could not detect associations between [<sup>123</sup>I]- $\beta$ -CIT binding S/C ratio and the DAT 1 genotypes (p = 0.28). No differences resulted between  $\beta$ -CIT ratio and individuals showing homo- and heterozygot genotype.  $\beta$ -CIT ratio in individuals either presenting with or without allel 5 was not different.

In here presented study we conclude that the  $\beta$ -CIT S/C ratio of DAT in TD is not associated with genotypic composition in individuals. A replication in another sample is important.

## P01.44

### OBSESSIONAL-COMPULSIVE SYMPTOMS IN FOUR GROUPS OF EATING DISORDERS SCREENED BY SCL-90

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Aim: We describe the prevalence and severity of the Obsessional-Compulsive symptoms in 4 groups of different eating disorders: Anorexia nervosa (AN; 28) Bulimia nervosa (BN; 35) Binge Eating Disorders (BED; 27) Eating Disorders NOS (NOS; 11), by SCL-90 scale. The diagnosis was defined according to DSM-IV criteria.

**Design of the Study:** We studied four different groups of eating disorders. We selected the O-C item of SCL-90 and compared the prevalence (*Prev*) of the pathological score in each group and the average of the pathological results (>1) (*Mean*).

**Results:** 

	AN		BN		BED		ED-NOS	
	Prev.	Mean	Prev.	Mean	Prev.	Mean	Prev.	Mean
0-С	60.7	2.04	80	1.91	74	1.72	63.6	1.65

**Discussion:** High prevalence of O-C is obviously common in every kind of addiction. Prevalence range is from 60.7% (AN) to 80% (BN). The mean score > 2 is present only in AN. The highest prevalence appears in BN and BED according to clinical assessment viceversa the lowest prevalence and mean appears in ED-NOS; this undefined complex of eating disorders is not clearly classified by DSM-IV, it would be necessary to study closely this not-typical phenomenon and to define, better than now, the guideline to classify it. SCL-90 confirms its role to screen O-C severity in eating-disorders/food-addiction patients.

## P01.45

EVALUATION OF PSYCHIATRIC CO-MORBIDITY IN A GROUP OF BINGE EATING DISORDERS SCREENED BY SCL-90

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Aim: In the field of eating disorders/food addictions, BED is until now poorly defined and classified. It's important to evaluate other psychopathology associated finalised to improve the therapeutic approaches.

**Design of the Study:** We describe the prevalence and severity of SCL-90 scores in 27 BED patients, according to DSM-IV criteria.. We selected all the items of SCL-90 and compared the prevalence (*Prev*) of the pathological score in each item and the average of the pathological results (>1) (*Mean*).

BED
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	s	0-C	INTS	D	A	Н	РН	PSY	PAR	SL
PREV	51.8	74	40.7	74	59.2	44.4	11.1	33.3	48.1	40.7
MEAN	1.6	1.7	2.45	2.15	1.79	1.87	1.61	1.9	2.18	2.8

**Results:** Co-morbidity range is from 11.1 to 74% (the highest prevalence is for D and O-C items). The mean score > 2 is present in 4 items (INTS, D, PAR, SL); the highest mean score is referred SL. Depression and Obsessive-compulsive symptoms represent the most important issue (74%) screened.

**Discussion:** High prevalence of D and O-C and the high score of A (59.2%) characterise the undefined group of BED. It would be necessary to study this kind of eating disorder by different scales to better define a profile of the syndrome and to suggest a new approach to the therapy. DSM-IV shows its limits to classified this phenomenon. We consider SCL-90 a good way to screen eating disorders but we need different methodologies to closely examine the complex field of co-morbidity in psychiatry.