Methods: The study was a hypothesis generating, prospective and naturalistic pharmacokinetic study of antidepressant drugs and their major metabolites; citalopram (CIT), sertraline (SERT), mirtazapine (MIRT), venlafaxine (VEN), and escitalopram (ECIT). Pregnant women medicated with an antidepressant were identified during their first visit to antenatal care (gestational week 10–12). At that visit they were genotyped for genes coding for crucial drug metabolic enzymes (CYP2D6 and CYP2C19) and antidepressant drug serum concentrations as well as s-albumin, α1-acid glycoprotein, and Cystatin C were taken. The latter as a marker for GFR changes. Around gestational week 15, 20, 25, 35 and at partus the procedure was repeated and at partus umbilical cord drug concentration was taken. Concomitant medication, weight changes and smoking habits were observed throughout the pregnancy.

Preliminary results: Seventy-six women (Mean age 31 years) were included and antidepressant PK-data were obtained from 43 completed pregnancies. The most common drugs were sertraline and citalopram (Table 1).

- The mean ratio for drug concentration umbilical cord/mother was 0.7 for citalopram (n = 11); and 0.3 for sertraline (n = 22).
- Dose-corrected citalopram concentrations did not change over time from visit 1 to partus and the ratio desmethylcitalopram/citalopram remained stable
- The ratio desmethylsertraline/sertraline increase significantly ($p = 0.04$)
- Three (A, B and C) venlafaxine pregnancies were followed and mother A was a poor metabolizer of CYP2D6. Low O-desmethylvenlafaxine/venlafaxine ratio was seen throughout her pregnancy. The venlafaxine concentration in her baby was 1226 nM compared to baby B: <5 nM and baby C: 57 nM.
- In general, a significant decrease of α1-acid glycoprotein was seen: 0.77 g/L to 0.66 g/L; $p = 0.004$ and p-albumin decreased from visit 1 to partus: 39 g/L to 29 g/L; $p < 0.0001$
- Reciprocal Cystatin C values (1/Cystatin C) values decreased from1.32 to 0.74; $p < 0.0001$ (n = 26)

Conclusion: In order to optimize antidepressant treatment an increased understanding of the continuous pharmacokinetic changes in the pregnant body is vital. The results of this study fill some of the knowledge gaps.

Table 1.

	Women/ visit	CIT (n)	ECIT (n)	SERT (n)	VEN (n)	MIRT (n)	ECIT/mirt (n)
Visit 1	76	18	4	46	6	1	1
Visit 2	70	18	4	41	5	1	1
Visit 3	63	18	4	36	3	1	1
Visit 4	56	15	4	32	3	1	1

P.2.h.007 Effects of antidepressants on temperament, character and defense mechanisms in major depression

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Objective: The relationship between mood and personality, has not been understood satisfactorily. Understanding the association between personality and depression has implications for elucidating etiology, chronicity and tailoring treatment. Psychoanalytic theory and Cloninger's psychobiological model have an important value in understanding personality. Temperament and Character Inventory and Defense Styles Questionnaire, which are developed based on these models are expected to provide a significant contribution. However, there are few prospective studies in related literature [1–4]. Starting from this point the purpose of the present study was to evaluate personality traits and defense styles of major depressive disorder (MDD) patients, to compare personality traits and defense styles in depressed patients and healthy comparison subjects, to explore the relations between depressive mood and personality characteristics and defense styles, as well as investigate the potential changes in personality dimensions and defense styles after treatment, to compare patients in remission with controls, and to put forward the characteristics of therapy response.

Methods: This study was conducted in 91 consecutive outpatients admitted to a Training And Research Psychiatry Hospital's outpatient units who were diagnosed with MDD by their assessing psychiatrist to justify and start naturalistic antidepressant treatment in last week. The study was designed as a prospective case-control study. At the end of the study 49 MDD patients were compared with 51 healthy controls(HC) using SCID-1, SCID-2, Temperament and Character Inventory (TCI), Defense Styles Questionnaire-40 (DSQ-40), Hamilton Depression Rating Scale, Beck Anxiety Scale, The Clinical Global Impressions Scale(CGİ) in 36 weeks follow-up repeated measures study with repeated measures at 0, 12 and 36 weeks.

Results: In baseline comparisons, the major depression group reported significantly higher Harm Avoidance (MDD Min-Max: 13–34 Mean±SD: 23.12±5.10 / HC Min-Max: 11–29 Mean±SD: 19.17±4.57 $P < 0.001$) and Novelty Seeking (MD Min-Max: 10–35 Mean±SD: 20.24±4.95 / HC min-max: 13–27 Mean±SD: 18.35±3.32 p: 0.027) scores, lower Self-directness (MD Min-Max: 11–36 Mean±SD: 22.08±5.25 / HC min-max: 18–33 mean±SD: 26.19±4.17 $P < 0.001$) and mature defense styles (MD mean±SD: 38.14±9.97 / HC Mean±SD: 43.19±7.52 $P < 0.005$) scores compared to healthy controls. In major depression, group, temperament dimensions remained unchanged throughout the study whereas there was significant increase in Self-directness(1st:22.10±5.19, 2nd:23.39±4.49 3rd:24.42±4.89 $P < 0.001$). After 12 weeks of treatment mature defense styles revealed significant increase(1st:38.14±9.97 2nd:39.57±8.21 3rd:41.06±8.15 $P < 0.001$) and immature defense styles revealed significant decrease (1st:115.69±20.92 2nd:113.59±20.01 3rd:111.28±18.85 p: 0.023) whereas neurotic defenses remained unchanged. Negative correlation was detected between severity of depression and the cooperativeness scores(r:-0,362 $P < 0.01$). With regard to predicting treatment outcome high mature defense scores and lower severity of depression increases the likelihood of remission.

Conclusion: We believe that the findings of our study provide clues about the relation between personality and depression even though there are some limitations. To make further progress in elucidating the relation between personality and depression prospective studies utilizing larger samples, testing people's defenses and personality profiles before they develop depression and following them longitudinally are needed.

References

[1] Hruby, R., Gabriela, N., Igor, O., Marek, P., 2009. Personality Changes During Antidepressant Treatment. Psychiatria Danubina 21, 25–32.