

DETECTION OF THE COMMONLY USED ANTIPSYCHOTIC DRUGS FROM HUMAN HAIR AND URINE IN A SAMPLE OF PATIENTS WITH SCHIZOPHRENIA

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Objective: Hair drug testing measures the drug molecules embedded inside the hair shaft, eliminating external contamination as a source of a positive result.

Method: Four drug groups with 20 schizophrenic patients for each drug (Haloperidol, Trifluoperazine, Clozapine and Risperidon). The 1st visit included clinical assessment (semi-structured interview and diagnosis, and Positive and Negative Schizophrenia Symptom Scale PANSS) and urine & hair samples were taken after the first week of drug administration. The 2nd visit was done and samples were taken after 4th week of drug administration. The 3rd visit was done and samples were taken after 8th week of drug administration.

Results: The four antipsychotics in this study can be detected earlier in urine than hair (starting from 1st week in the former and 4th week in the later) HPLC test. There were significant differences in the mean scores of PANNS for the four drugs in 1st, 4th, and 8th weeks.

Conclusion: The advantages of hair analysis over urine analysis include the non-invasiveness, low cost, easier to collect, store, transport, the ability to measure a large number of potentially interacting toxic and biologically essential elements.