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COMMENT

The genetics of drug-related movement disorders (DRMD), reply to comment: Antipsychotic-induced catatonia and neuroleptic malignant syndrome: The dark side of the moon

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TO THE EDITOR:

We thank Dusan Hirjak et al. for their comments and compliments on our paper *The genetics of drug-related movement disorders, an umbrella review of meta-analyses*. They suggest that antipsychotic-related catatonic symptoms (ACS) and neuroleptic malignant syndrome (NMS) should have been included in the umbrella review (UR). We find their concern important and would like reply as follows.

Hirjak et al. state that in clinical practice it is often difficult to disentangle genuine catatonia from ACS, given some overlapping signs and symptoms. In our UR, we state that drug-related movement disorders (DRMD) may be involved in the pathophysiology of psychotic disorders. In that view antipsychotics are not the cause but a moderating factor and may increase the risk of motor dysfunctions. E.g. motor dysfunctions are found in a proportion of antipsychotic-naive patients, with first-episode schizophrenia and that subgroup is extra vulnerable for drug-induced movement disorders [1–4]. It could be that the same counts for catatonia, i.e. subclinical genuine catatonia may be involved in the pathophysiology of psychotic disorders (and other psychiatric disorders) and ACS could be, partly, an aggravated form of underlying genuine catatonia. Also, malignant catatonia is hard to distinguish from NMS. In both syndromes, antipsychotic treatment plays an important role but in different ways: antipsychotics initiate NMS but aggravate malignant catatonia [5].

Recent genetic studies [6, 7] reveal patterns of shared and distinct gene-expression alterations across psychiatric disorders and the data suggest that common polygenic variation underlies a substantial proportion of cross-disorder expression overlap [8]. The similarities and the possible differences in genetics may suggest a neuropathological and pathophysiological overlap in the background of the syndromes like ACS, NMS, catatonia, and DRMD. Consequently, we propose further genetic research in ACS and NMS to answer the questions raised by Hirjak er al. and by us. However, genetic research into ACS and NMS could be problematic as these phenomena are rare phenotypes.

In summary, we agree that ACS, genuine catatonia, and NMS should be included in a genetic UR on DRMD. Additional genetic research is, however, needed. Therefore, we suggest an update of our UR when genetic research has been broadened on ACS and NMS.

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COMPETING INTERESTS

The authors declare no competing interests.

ADDITIONAL INFORMATION

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