Correspondence

the positive predictive value of CNVs for schizophrenia is greater than 'screening', and apologize for this ambiguity. In this sense testing for CNVs in those with a diagnosis of schizophrenia. On the other hand, we were not suggesting universal screening of CNVs in healthy individuals. We would like to make it clear that recommendations relating to copy number variant (CNV) testing for an individual with a diagnosis of schizophrenia or autism spectrum disorders should be based on the presence of specific symptoms and not on the presence of CNVs.

We believe that testing for pathogenic CNVs in schizophrenia should be considered for a number of reasons, but emphasize that this should only be undertaken with clear informed consent and in the context of professional genetic counselling. Among the potential benefits of knowing the carrier status of patients, physical health and informing patients about potential risks to family/offspring are the two areas that stand out.

Therefore, if we diagnose a patient with schizophrenia as a carrier of a pathogenic CNV, even though this will apply to only 2–3% of our patients, it could have important implications for their management. The identified CNVs can have an adverse impact on patients’ health given that these CNVs are associated with obesity, epilepsy and cardiovascular disorders. This information could be crucial in guiding targeted monitoring and intervention, particularly given the increasing recognition of the effects of poor physical health and decreased life expectancy in schizophrenia. These factors may also be important considerations in the selection of the most appropriate medication.

Further, although the frequency of the implicated CNVs is low in schizophrenia, each of the 11 implicated CNVs can lead to a range of other disorders such as developmental delay, intellectual deficit, autism spectrum disorders, and a number of congenital anomalies. We have estimated that carriers of these CNVs have substantial risk of developing one of these serious disorders. The risk ranges from 10.6% for the duplication at 16p13.11 to nearly 100% for the deletion at 22q11.2, with an average of 42.8%. The penetrance solely for schizophrenia is indeed relatively low, ranging from 2 to 12% (assuming a 1% lifetime risk for schizophrenia). Taken together, we feel that this information could be helpful to patients in making decisions about having children and potentially for their wider family.

There is currently a lack of research into the possible benefits and risks of such genetic testing and we would strongly advocate for such research before the implementation of CNV testing programmes. This should be informed by the wealth of experience in genetic counselling that has developed in other genetic disorders. We feel many patients and families would find this information helpful in rationalising a cause for the illness and that this may help lessen the guilt experienced by many families. We appreciate the chance to have begun this debate and would stress that the views of patients with schizophrenia and their families relating to genetic testing should be central to the debate and future research.

Authors’ reply: We thank Professor Bebbington for his comments and for giving us the opportunity to clarify our recommendations relating to copy number variant (CNV) testing in those with schizophrenia. We would like to make it clear that we were not suggesting universal screening of CNVs in healthy populations. Rather, we were suggesting that it is time to consider testing for CNVs in those with a diagnosis of schizophrenia. On reflection, we should have used the term ‘genetic testing’ rather than ‘screening’, and apologise for this ambiguity. In this sense the positive predictive value of CNVs for schizophrenia is irrelevant as the patient already has the disorder.

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