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COULD BRAIN IMAGING BE A BIOLOGICAL VALIDATOR OF MENTAL ILLNESS?

S. Lawrie

University of Edinburgh, Edinburgh, UK

Case-control differences at the voxel or regional level in structural brain imaging assessments tend to be subtle and non-specific, but these could still be sensitive diagnostic assays in certain situations e.g. in a population at genetic or other risk for a particular disorder. More sophisticated pattern classification methods, such as support vector machines, which use more of the available information, have been applied to distinguish established cases from controls, and to distinguish people at high symptomatic risk of developing schizophrenia who do and do not make the transition. Functional brain imaging techniques are likely to be generally more sensitive and examples of our work will demonstrate this for both high risk and established schizophrenia versus bipolar contrasts.