

Proteomic markers may predict psychosis in those at risk

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(HealthDay)—In young people at risk for psychosis, proteomic

biomarkers may help to individualize prognosis, according to a study published online Aug. 26 in *JAMA Psychiatry*.

David Mongan, M.B., B.Ch., from the Royal College of Surgeons in Dublin, Ireland, and colleagues investigated whether proteomic biomarkers can predict transition to psychotic disorder in the clinical high-risk (CHR) state and adolescent psychotic experiences (PEs) in the [general population](#). The analysis included data for patients participating in the European Network of National Schizophrenia Networks Studying Gene-Environment Interactions (EU-GEI; 133 participants at CHR [mean age, 22.6 years; 51.1 percent men]), of whom 36.8 percent developed psychosis and 63.2 percent did not. The analysis also included data from the general population participating in the Avon Longitudinal Study of Parents and Children (ALSPAC; 121 participants; 50.4 percent men), of whom 45.5 percent had PEs at age 18 years and 50.4 percent did not.

The researchers found that in the EU-GEI dataset, a model based on baseline clinical and proteomic data demonstrated excellent performance for prediction of transition outcome (area under the receiver operating characteristic curve [AUC], 0.95; [positive predictive value](#) [PPV], 75.0 percent; negative predictive value [NPV], 98.6 percent). Using the 10 most predictive proteins, a model accurately predicted transition status in [training data](#) (AUC, 0.99; PPV, 76.9 percent; NPV, 100 percent) and test data (AUC, 0.92; PPV, 81.8 percent; NPV, 96.8 percent). In the ALSPAC dataset, a model using proteomic data at age 12 years predicted PEs at age 18 years with an AUC of 0.74, a PPV of 67.8 percent, and an NPV of 75.8 percent.

"These findings implicate early dysregulation of the complement and [coagulation cascade](#) in the development of psychosis outcomes," the authors write.

Two authors disclosed financial ties to the biopharmaceutical industry; several authors have patents related to a biomarker panel pending.

More information: [Abstract/Full Text](#)

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