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Schizophrenia and Rheumatoid Arthritis Genetic Scenery: Potential Non-HLA Genes Involved in Both Diseases Relationship
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Abstract
Background: The link between rheumatoid arthritis (RA) and schizophrenia (SZ) has long been a hot topic of deliberation among scientists from various fields. Especially when it comes to genetics, the connection between RA and SZ is still up for discussion, as can be observed in this study. The HLA genes are the most disputed in identifying a connection between the two diseases, but a more thorough investigation of other genes that may be ignored could yield something even more interesting. Thus, finding the genes responsible for this long-sought relationship will necessitate looking for them. Materials and Methods: Shared and overlapped associated genes involved between SZ and RA were extracted from four databases. The overlapping genes were examined using Database for Annotation, Visualization and Integrated Discovery (DAVID) and InnateDB to search the pertinent genes that concatenate between these two disorders. Results: A total of 91 overlapped genes were discovered, and that 13 genes, divided into two clusters, showed a similarity in function, suggesting that they may serve as an important meeting point. FCGR2A, IL18R, BTNL2, AGER, and CTLA4 are five non-HLA genes related to the immune system, which could lead to new discoveries about the connection between these two disorders. Conclusion: An in-depth investigation of these functionally comparable non-HLA genes that overlap could reveal new interesting information in both diseases. Understanding the molecular and immune-related aspects of RA and SZ may shed light on their etiology and inform future research on targeted treatment strategies. Copyright ©2024, Yale Journal of Biology and Medicine.

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