

Literature Survey on Sub-Groups of Children with Kawasaki Disease a Data-Driven Cluster Analysis

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Abstract: A notable childhood vasculitis that has a high risk of cardiovascular problems is Kawasaki illness. Despite being first identified in 1967 by fever and mucocutaneous irritation, it has since shown a variety of symptoms, the most serious of which is coronary artery aneurysms. Its complicated etiology is influenced by the interaction of environmental stimuli and genetic predisposition. Current multi omic research has shown unique patient profiles with varying host reactions. Factors such as age, gender, ethnicity, inflammatory indicators, and early coronary dilatation are linked to varying risks of coronary artery aneurysms. Clinical management is guided by the categorization of patients into complete or incomplete Kawasaki illness. We seek to identify subgroups using data-driven cluster analysis, improving comprehension for accurate patient treatment and research.

Keywords: Hierarchical Clustering, K-Means Clustering, DBSCAN clustering, Gaussian Mixture Machine Learning, ML techniques

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