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Using CHAID Algorithm in Low-Risk Metabolic Syndrome Patients

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Metabolic Syndrome (MetS), a cluster of more than three cardio-metabolic risk factors, is becoming a major worldwide health problem. CHAID analysis can bring to front the role of pathogenesis – represented by insulin resistance and measured by Reaven index, and the importance of two-cumulated criteria – as the association of hypertension and obesity, in revealing the likelihood of developing MetS in patients that do not yet account for all condition criteria. The aim of our research was to stress the order of influence of a specific two-cumulated criterion comparative to other MetS criteria comprised into a pathogenic index – the Reaven index (comprising TG and HDL that are two independent MetS diagnosis criterion). CHAID Decision Tree Algorithm can become an intelligent system to support wise decision-making and to predict the likelihood of developing MetS in patients at low-risk for this condition.