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Chamila Perera* (chamila.perera4@gmail.com), **Xiaogang Su**, **Mae Gordon**, **Michel Kass**, **Philip Miller** and **Lei Liu**. *Precision Medicine: Subgroup Identification in Ocular Hypertension Treatment Study*.

Subgroup identification is a major topic in precision medicine specially when the treatment effect is significant only for some subjects. Here, we are interested in identifying patient subgroups responding differently to the topical treatment on the risk of primary open angle glaucoma (POAG) in Phase I of the Ocular Hypertension Treatment Study (OHTS I). Due to a large portion of missing values for some variables, we first conducted multiple imputation resulting in five imputed data sets. Then we applied an interaction tree (IT) procedure which uses recursively partitioning methods to identify subgroups with homogeneous treatment effect. We identified some subgroups with differential treatment effect. (Received July 28, 2020)