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Preeti Dubey* (pdubey1@luc.edu), Division of Hepatology, 2160 S First Ave, Maywood, IL 60153, and **Harel Dahari**. *Modeling the interplay between hepatitis D virus (HDV) and hepatitis B virus (HBV) during anti-HDV treatment*. Preliminary report.

Hepatitis D virus (HDV) is an infectious subviral agent that can only propagate in people infected with hepatitis B virus (HBV). The dynamics of treatment response in patients co-infected with HBV and HDV can be complex because change in one virus can have effect on the other virus. The prenylation inhibitor lonafarnib is the first antiviral treatment against HDV, which provided novel information about the interplay between the two viruses. Interestingly, some lonafarnib-treated patients had a decline in HDV RNA while HBV DNA had an increase. To explain the observed kinetics, we developed a mathematical model and performed model calibrations. I will present the observed kinetics and modeling efforts along with estimated parameters and drug efficacy. (Received September 15, 2019)