GCD results on semiabelian varieties and a conjecture of Silverman

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A divisibility sequence of polynomials is a sequence d_n such that whenever m divides n one has that d_m divides d_n. Results of Ailon and Rudnick, among others, have shown that pairs of divisibility sequences corresponding to subgroups of the multiplicative group have only limited common factors. Silverman conjectured that a similar behaviour should appear in (a large class of) all algebraic groups. We show, extending work of Ghioca-Hsia-Tucker and Silverman on elliptic curves, how to prove Silverman's conjecture over function fields for abelian and split semi-abelian varieties and some generalizations.