

Abstract

Hybrids produced from crossing Cornell K-strain white leghorn chickens and Line II Japanese quails were studied for susceptibility to infection with infectious bursal disease virus (IBDV). Quail-chicken hybrids were infected successfully following inoculation with IBDV at 14, 21, or 52 days of age. In most cases, precipitating antibodies were detected in serum by 10 days postinoculation (PI). Although no clinical signs or gross lesions were evident in the bursa of Fabricius of hybrids, histologic changes in the bursa were detected upon microscopic examination using hematoxylin and eosin staining. Chickens were successfully infected also; they had gross and microscopic lesions in the bursa and produced precipitating antibodies. In addition, staining of bursal sections with low concentrations of peroxidase-conjugated concanavalin A revealed a rearrangement of a leukocyte cell type (probably macrophages) in infected chickens and hybrids. Japanese quails were refractory to infection; they showed no bursal changes and did not form precipitating antibodies.