Optimizing Bovine Abortion Diagnostics

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Abstract

Very few aborted bovine fetuses have distinctive pathologic changes that contribute to confirming a diagnosis, with the exception of fetuses with congenital anomalies, thus sending an intact fetus to a diagnostic laboratory for necropsy by a pathologist rarely enhances the prospects for obtaining a positive diagnosis. In fact, it is questionable whether necropsies of aborted fetuses routinely merit the time of a busy veterinary practitioner, when a technician can be trained to collect, package and ship specimens as effectively and more efficiently. In addition, owners, managers, and herdsmen can be recruited into the diagnostic team in herds with on-going abortion problems if proper training and supplies are provided. A protocol for proper specimen collection and packaging for diagnosis of bovine abortions, which can be used by veterinarians or for training technicians, will be presented.

Introduction

Diagnosis of abortions is notoriously discouraging for animal owners, their veterinarians and the veterinary laboratory diagnosticians. Despite significant advances over the past two decades in development of new laboratory diagnostic technologies and techniques, and even discovery of a few new abortion-causing diseases, positive diagnoses are not obtained for the majority of abortion cases submitted to veterinary diagnostic laboratories.

Realities of Diagnosis

Collection of suitable specimens from aborted fetuses as quickly as possible following abortion and proper packaging of these specimens for shipment to a diagnostic laboratory can at least optimize the chance that a positive diagnosis will be obtained. Very few aborted bovine fetuses have distinctive pathologic changes that contribute to confirming a diagnosis, with the exception of fetuses with congenital anomalies, thus sending an intact fetus to a diagnostic laboratory for necropsy by a pathologist rarely enhances the prospects for obtaining a positive diagnosis. In fact, it is questionable whether necropsies of aborted fetuses routinely merit the time of a busy veterinary practitioner, when a technician can be trained to collect, package and ship specimens as effectively and more efficiently. In fact, owners, managers and herdsmen can be recruited into the diagnostic team in herds with on-going abortion problems if proper training and supplies are provided. A protocol for proper specimen collection and packaging for diagnosis of bovine abortions, which can be used by veterinarians or for training technicians will be presented.