**Abstract**

A 10-week-old, female, Jersey calf was referred to the University of Minnesota Veterinary Medical Center for evaluation of difficult breathing and inappetence of 18-hours duration. Cytologic examination of a transtracheal wash specimen revealed pyogranulomatous inflammation, with increased numbers of multinucleated cells. Differential diagnoses included established bacterial infection, viral infection, fungal infection, and foreign body reaction. Immunocytochemical staining was done on a direct smear of the transtracheal wash using a cocktail of 4 mouse monoclonal antibodies against 3 human respiratory syncytial virus proteins. Strong intracytoplasmic staining within mononuclear cells was observed and a diagnosis of bovine respiratory syncytial virus infection was made. Immunocytochemistry may be used as a rapid, inexpensive, adjunctive diagnostic tool for the antemortem diagnosis of bovine respiratory syncytial virus on transtracheal wash specimens.