Risk factors and seroprevalence of *Mycoplasma synoviae* infection in broiler breeder farms in Mazandaran province, north of Iran

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*Mycoplasma synoviae* infection occurs worldwide in commercial poultry flocks and may result in severe economic losses. This study was aimed to determine the risk factors (age, size of flock, locale and strain) and seroprevalence of *M. synoviae* in broiler breeder farms in Mazandaran province, north of Iran. The study was conducted from May 2002 to October 2008 that was based on Rapid Serum Plate Agglutination (SPA) and enzyme linked immunosorbent assay (ELISA) tests. For statistical test SPSS (chi square test and pearson correlation) was used. The highest (41.2%) and lowest (0%) prevalence of *M. synoviae* infection was found in 2003 and 2008, respectively. Seasonal variation of prevalence with *M. synoviae* infection was observed in the present study. The prevalence was highest (39.6%) in winter and lowest (30.6%) in summer. Ross, Cobb, Arian, Hubbard and Arbor Acres strains had 40%, 44%, 32%, 27% and 45% infection, respectively. The prevalence of *M. synoviae* infection increased with age. The prevalence was recorded highest in above 60 weeks of age (43.1%), but at 10-20 weeks it was lowest (12.7%). The population of the flocks was not influenced on *M. synoviae* prevalence, no significant difference was seen in flocks up to 30,000 population (37.8%), 30,000-40,000 (46.8%) and upper 40,000 (51.3%). Farms were separated in two different zones (foothills with less humidity compared with coastal area). The prevalence of Mycoplamosis in foothills was significantly (P<0.05) higher (36.9%) than coastal area (30.1%). The results showed that occurrence of *M. synoviae* have a significant relationship with the age and zone of sampling.