Seroprevalence and risk factors of *Mycoplasma gallisepticum* infection in Iranian broiler breeder farms

Seifi, S.1, Shirzad, M.R.2 and Pourfallah, M.3, 1Faculty of Veterinary Medicine, University of Mazandaran, Amol, Iran, 2School of Veterinary Medicine, Shiraz University, Shiraz, Iran, 3Medical Hygiene Network, Amol, Iran; saeedseifi@umz.ac.ir

This study was aimed to determine the risk factors (age, size of flock, locale, sex and strain) and seroprevalence of Mycoplasma gallisepticum (MG) in Iranian broiler breeder farms. In addition correlation between seroprevalence in breeder with chronic respiratory disease in their progeny was analyzed. 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. To find a correlation between MG in breeders with airsacculitis in their progeny, data from broiler slaughterhouses were registered. According to the results, the highest (21.4%) and lowest (0%) prevalence of MG infection was found in 2003, 2008 respectively (P<0.05). The prevalence was highest (18.5%) in winter and lowest (6.8%) in summer. Ross, Cobb, Arian, Hubbard and Arbor Acres had 23.2, 8, 11.4, 14 and 6.9 respectively infection. The prevalence was recorded highest at 10-20 weeks of age (28%), but in above 60 weeks it was lowest (3.4%). MG infection was higher (56.21%) in female than in male (43.79%). The population of the flocks was not influenced on Mycoplasma gallisepticum prevalence, no significant difference was seen in flocks up to 30,000 population (11.7%), 30,000-40,000 (19%) and upper 40,000 (23%). The prevalence of Mycoplamosis in foothills was relatively higher (9.4%) than coastal area (7.2%), however not significantly different. The correlation between MG in breeder and chronic respiratory disease in broiler wasn’t significant (respectively P=0.743, P=0.103) according to this, vertical infection couldn’t be an important cause of condemnation for broiler in slaughterhouse.