

METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS* IN PIG SLAUGHTERHOUSES

Meldra IVBULE¹, Anda VALDOVSKA², Edvins MIKLAŠEVICS³, Liene ČUPĀNE³

¹Food and Veterinary Service, Veterinary Surveillance Department

²Latvia University of Agriculture, Faculty of Veterinary Medicine

³Riga Stradins University, Institute of Oncology

Peldu street 30, LV-1050, Riga, Latvia

Email: meldra.ivbule@pvd.gov.lv

Abstract. *Methicillin resistant Staphylococcus aureus (MRSA) has been found in various species of animals, livestock, farmers, slaughterhouses workers and retail meat. During slaughtering process of MRSA positive animals, workers may get infection as well as contamination of carcasses with MRSA may occur.*

The aim of the study was to find out occurrence of MRSA in pig slaughterhouses.

Microbiological samples (n=248) including nasal (n=75), rectal (n=75), samples from pig carcasses (n=80) and environment (n=18) were collected during winter 2013/2014 from three Latvia slaughterhouses with different slaughter capacity. Isolation and identification of the MRSA was done by conventional and molecular methods.

MRSA was found in slaughterhouses average in 53% of pigs. MRSA was detected in 35% of nasal, 21% of rectal and in 6% of samples from pig carcasses. Only 9% of all positive samples, MRSA were found both rectal and nasal samples in animals. In major cases MRSA was detected in pigs 27% only in nasal and 19% - only in rectal samples. There was seen a tendency: as higher the capacity of slaughter, as higher the contamination of pig carcasses with MRSA. According to our data MRSA was found only in carcasses that were prepared with scalding method.

As it is seen from our study, occurrence of MRSA in slaughtered pigs was quite high, but considering good hygiene practice during the meat production process, contamination from slaughtered pigs to carcasses decreased 6 times. The main source of MRSA contamination for carcasses is pigs that are colonized with MRSA.

Key words: *Methicillin resistant Staphylococcus aureus, slaughterhouses.*