IDENTIFICATION AND ANTIBIOTIC RESISTANCE OF LACTIC ACID BACTERIA ISOLATED FROM SUFFOLK DOWN LAMBS.

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The aim of this study was to obtain some strains of Lactic Acid Bacteria (LAB) from lamb media (milk, meat, feces) coming from different geographical areas and feeding systems of the Region of Bio-Bio, Chile. Samples were taken from 18 lambs (Suffolk Down), according to different type of feeding (natural pasture and supplemented pasture) and geographic area (foothill and central valley). A total of 113 bacterial strains were isolated in MRS agar and identified by API 50 CHL (Biomerieux®). After bacterial identification, only LAB isolated were analyzed for their antimicrobial resistance using disk diffusion test. Thirty-six isolates were identified as LAB, 2 strains of Lactobacillus brevis; 7 of Lactobacillus paracasei ssp paracasei, 5 of Lactobacillus pentosus, 3 of Lactobacillus plantarum and 14 strains of Lactococcus lactis ssp lactis. The highest frequency of isolation of LAB strains (72 %) was associated to samples coming from foothills area. From lambs fed with natural pasture a greater number of LAB was isolated (47.2%), in contrast to supplemented pasture. For the antimicrobial resistances, 27.7 % of the 36 LAB isolated were resistant to cefotaxime, 47% to gentamicin and 30.5% to trimethoprim/sulphamethoxazole. All LAB showed susceptibility at novobiocine, peniciline, ciprofloxacin, vancomycin, amoxicillin/clavulanic acid and erythromycin. And multiple resistances were observed. Since commensal bacteria may act as reservoirs of antibiotic resistance genes, a series of measures are required to avoid the use of them as commercial starters in food products, complemented by a more cautious use of antibiotics in agriculture, veterinary and human medicine.