Mumtaz et al., 2014; Sayarifard et al., 2015). The slight variations of ESR values after amikacin administration can be explained by the low nephrotoxic potential of this aminoglycoside, less than the same for gentamicin and tobramycin (Hottendorf and Gordon, 1980).

Spectinomycin leads to significant increase of ESR, followed by a trend to recovery of the baseline values. The differences were statistically significant, but not highlighted, probably due to the low potential of spectinomycin to cause changes in biochemical and hematological parameters at therapeutic doses (Dinev, 2007). Apramycin brought about the least pronounced and insignificant changes of ESR. We assume the reason for the less distinct changes of goat´s ESR in aminocyclitol treatment is due to the lack of nephrotoxic potential of the aminocyclitols (Dowling, 2013). Up to now they are no experimental data suggesting nephrotoxic effects after their application, even after high-dose therapy (Novak et al., 1974). Kanamycin caused decrease of ESR values in the last days of treatment, without restoration - a tendency that is generally contrary to the observed in our study. However, differences in the values of ESR, although statistically significant, are not highly expressed. Lack of research data regarding ESR response to spectinomycin, kanamycin and apramycin administration makes difficult the explanation of the somewhat inconsistent trends observed in our study. We assume that this is due to the use of therapeutic doses of antibiotics, which rarely cause pronounced changes.

In conclusion, according to the experimental results, gentamicin and tobramycin cause remarkable changes in goat´s ESR, even after treatment with therapeutic doses. This gives grounds to recommend ESR data after treatment with these antibiotics to be cautiously interpreted. Generally, the aminocyclitols cause less pronounced changes in the goat´s ESR than the aminoglycosides.

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