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Relationship between glycolytic potential and some  
physico-chemical and functional traits of *longissimus*  
*lumborum* muscle including chilling method of carcasses

S u m m a r y

The aim of this study was to estimate the relationship between glycolytic potential, as measured in *longissimus lumborum* (LL) muscle samples taken at 45 minutes after slaughter and physico-chemical and functional traits of LL muscle including chilling method of carcasses. The investigations covered 50 (Landrace x Yorkshire) x Duroc fatteners. The carcasses were chilled conventionally (4°C - 24 h) - 50 right half-carcasses and in three-phase tunnel (-10°C - 15 min, -15°C - 25 min and -5°C - 40 min, with air velocity 3 m/s) 50 left half-carcasses. After passing through the chilling tunnel, carcasses were held at 4°C to 24 h after slaughter. Glycolytic potential was negatively correlated with pH of LL muscle. The strongest correlation was stated with pH measured in 24 and 48 h after slaughter in fast chilling half-carcasses. Higher correlation coefficients between glycolytic potential and value of drip loss of stored meat from chilled conventionally carcasses in comparison to fast chilled ones, probably indicate the influence of cold shortening on value of drip loss in fast chilled carcasses.