

RELATIONSHIP BETWEEN SPERM QUALITY AND TESTICULAR LESIONS IN CULLED AI BOARS

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Abstract. This study was carried out to assess the relationship between sperm defects and histomorphological changes in the testes of culled AI boars. A total of 23 culled for reproductive disturbances mature boars were included in the analysis. The mean age of the animals was 34.9±10.7 months. The semen was collected once just before the slaughter. Boars were assigned to five groups according to the percentage of total sperm defects in the ejaculate: group I – ≤10 %; group II – 11–20 %; group III – 21–30 %; group IV – 31–50 % and group V – ≥ 50 %. Testicular histomorphological lesions were classified as follows: mild degeneration (DEG1), moderate degeneration (DEG2) and severe degeneration (DEG3), inflammation/orchitis (INFL), fibrosis and atrophy (FIBR). Our results showed the relationship between sperm defects and the major pathologic involvements of the testis: severe degeneration correlated negatively with percentage of motile spermatozoa ($r=-0.50$; $P<0.05$), the total number of normal spermatozoa ($r=-0.67$; $P<0.001$) and positively correlated with the number of spermatozoa presenting simple bent tail ($r=0.68$; $P<0.001$). The results of our study showed the correlation between testis histomorphology and sperm count, morphology and motility of AI boars.

Keywords: boar, testis, sperm quality, degeneration.