Broiler Chicken Myopathies: II. Woody Breast?

Recent observations from several countries, including the USA, describe another type of myopathy affecting the superficial pectoral muscle (fillet) of broiler chickens often named as “Woody Breast.” These fillets are either completely hardened (dense) to the touch or exhibit hardened “ridges” along the ventral portion of the breast. These ridges are easy to detect upon palpation of the fillets. At times, these lesions are also accompanied by citrine color viscous fluid (transudate) on the thickest portion of the muscle. The lesions are aseptic and often described as severe chronic pectoral degenerative myopathy. Histological observations include muscle fiber fragmentation, hyalinization, myofiber swelling, necrotic muscle fiber replacement with connective tissue, macrophage infiltration and presence of irregular patches of adipose tissue. The lesions have been attributed to tissue hypoxia or anoxia due to vascular disruption and/or stagnant tissue perfusion. Hardened ridges could be from the degeneration of muscle fibers adjacent to the band of muscle fascia. The cause (s) of potential circulatory interruption is not known, but what is know is a documented reduction capillary supply to the increasingly hypertrophic myofibers. It is not clear of the white striping described in the January issue of WOGS is linked to this condition. Perhaps the subtle reductions in perfusions of the muscle tissue, especially at times of higher metabolic demand (exertion) is sufficient to induce this degeneration… Stay tuned for more research and updates on this syndrome later…

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