Bloody Milk in Buffalo Cows: Diagnosis and Trials for Treatment

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Article History: Received: 25/8/2016 Received in revised form: 24/11/2016 Accepted: 10/12/2016

Abstract

The present study was conducted on 80 composite milk samples collected from dairy buffaloes secreting bloody milk from all four quarters without any inflammatory signs on mammary gland, systemic reaction or decrease in milk yield at Sharkia Governorate. Somatic cell count (SCC) revealed that 46 samples (57.5%) have SCC range between 200,000 to 250,000 cell/mL, while, 34 samples (42.5%) have SCC below 200,000 cell/mL. California mastitis test (CMT) was negative for 65 out of 80 (81.3%) and positive in 15 out of 80 (18.7%). Bacteriological examination revealed that 56 out of 80 samples (70%) were bacteriologically positive and 24 (30%) were bacteriologically negative. Coagulase positive Staphylococcus aureus were identified in 14 out of 56 (25%), however, 42 samples out of 56 (75%) were contaminated with coagulase negative Staphylococci (CNS), 20 of them had SCC less than 200,000 X 10^3. All Coagulase positive S. aureus were isolated from milk of SCC between 200 X 10^3 to 250 X 10^3 cell/mL. Antibiotic sensitivity test revealed that Gentamycin, Amoxicillin + Clavulenic acid and Enrofloxacin were the most effective antibiotics on both S. aureus and CNS. Group 1, 2 and 3 (bacteriologically positive cases) were treated with Gentamycin, Amoxicillin + Clavulenic or Enrofloxacin in addition to coagulant (Amri-K) showed cure rate of 80%, 80% and 60%, respectively. Group 4 that contained animals with negative bacteriological culture were treated by coagulant (Amri-K) only, showed cure rate of 60%. However, the return rate of the disease was 0, 20, 40 and 40%, respectively. Biochemical and hematological parameters showed non-significant differences between bloody milk and healthy control dairy buffaloes. This study concluded that either coagulase positive or coagulase negative S. aureus is incriminated with the bloody milk syndrome in dairy buffaloes in Egypt, however, Gentamycin in addition to coagulant (Amri-k) is the best treatment.

Keywords: Bloody Milk, Buffalo Cows, SCC, S. aureus, Amri-K.