

Acute phase proteins in serum and milk from dairy cows with clinical mastitis

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The serum concentrations of haptoglobin, serum amyloid A and α_1 acid glycoprotein were determined in serum collected from healthy dairy cows and cows with clinical mastitis, graded as mild (clots in milk) or moderate (clots in milk and visible signs of inflammation in the mammary gland/s) to assess their relative diagnostic value in detecting the disease. The concentrations of haptoglobin and serum amyloid A were also measured in milk collected from infected and uninfected quarters. The concentrations of haptoglobin and serum amyloid A were higher in the serum and milk from the cows with mild or moderate mastitis. The diagnostic value of haptoglobin in differentiating between healthy animals and those with mastitis gave sensitivities and specificities of 82 per cent and 94 per cent respectively with serum and 86 per cent and 100 per cent with milk. The diagnostic value of serum amyloid A in differentiating between healthy animals and those with mastitis gave sensitivities and specificities of 83 per cent and 90 per cent with serum and 93 per cent and 100 per cent with milk. The diagnostic value of serum α_1 acid glycoprotein in differentiating between healthy animals and those with mastitis gave sensitivities and specificities of 62 per cent and 91 per cent.

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