Evaluation of serum vitamin C, β-carotene and α-tocopherol status in Pneumonia of Camels

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Abstract:

Status of serum vitamin C, β-carotene and α- tocopherol concentrations was evaluated in 17 camels suffering from pneumonia. The grossly affected lungs were collected for histopathological examination from camels at slaughterhouses, and serum samples were processed for measuring β-carotene (micrograms per decilitre), vitamin C (milligrams per decilitre) and α-tocopherol (micrograms per decilitre) levels. Based on histopathological examinations, camels under investigation were classified as acute bronchopneumonia (N=3), chronic bronchopneumonia (N=4), chronic pleuropneumonia (N=3), interstitial pneumonia (N=3), embolic pneumonia (N=3) and control group (N=4). The results revealed significant decreases in serum vitamin C and α-tocopherol concentrations in all investigated types of pneumonia. However, serum β-carotene showed insignificant changes. Results of the present study clearly demonstrated the importance of supplementing camels suffering from pneumonia with sources of vitamins along with the conventional systemic treatment to overcome the oxidative stress and to avoid the possible complications of α-tocopherol and vitamin C deficiencies.

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