

## **EFFICACY OF DIETARY SUPPLEMENTATION IN CATS WITH ADVANCED CHRONIC KIDNEY DISEASE**

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Chronic kidney disease (CKD) is a very common disorder in elderly cats (1). A proper renal diet represents the most efficient therapeutic intervention to improve survival and life quality in feline patients with 3 and 4 IRIS stages (2). However, when diet alone is not sufficient, dietary supplementation with other substances (ie, phosphorus chelates and alkalizing agents) is needed (3). The present study aims to evaluate the efficacy and palatability of a dietary supplementation containing calcium carbonate, calcium-lactate gluconate, chitosan and sodium bicarbonate in cats with 3 and 4 IRIS stages of CKD.

20 cats (mean age: 11.1±2.4) were considered. All animals belonged to IRIS stages 3 (80%) and 4 (20%) of CKD since at least one month and had hyperphosphatemia despite assuming a renal diet. 10 cats (T group) were administered the dietary supplementation at 0.2g/kg/die for 6 months along with the renal diet (composition: 23% CP; 17% C Fat; 4.7% C Fiber; 0.6% Ca; 0.3% P). 10 animals in IRIS stage 3 or 4 (same percentage of T group), whose owners did not give consent for any supplemental therapies apart from the renal diet, were selected from the clinical database and served as control (C) group. Haematochemical, biochemical and urine analyses were performed on 0, 15, 30, 60, 90, 120, 150 and 180 days. GraphPad Prism® software was used to perform statistical analysis. Data were analyzed by one-way ANOVA, Kruskal-Wallis, Student t and Mann-Whitney U tests (P<0.05).

Decrease (41% at day 180) of serum phosphorus and increase of serum ionized calcium (10% at day 180) and serum bicarbonate (7% at day 180) were observed in T group. Serum phosphorus at days 30, 60, 90, 120, 150 and 180 was lower (P<0.01) in T group than C.