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### **GLOMERULOPATHIES: TREATABLE CAUSES AND COMPLICATIONS**

As part of its function the glomerulus is constantly exposed abnormalities in the bloodstream and will regularly be influenced negatively by systemic abnormalities e.g. hypo- as well as hypertension, inflammatory responses or circulating toxins.

The regenerative capacity of the glomerulus is limited thus severe and/or prolonged exposure to unfavourable circumstances can lead to permanent damage. Compensatory mechanisms within the glomerulus can even give rise to progressive changes even when the initiating cause has disappeared.

So it can be worthwhile to monitor glomerular function in patients where predisposing factors are mentioned, comorbidities leading to renal damage are present or perhaps potential nephrotoxic medications are prescribed.

However it is not always so easy to determine the clinical value of various laboratory parameters; how to translate a given number into reevaluation of the treatment (and improvement of prognosis?)

Literature will help to get information on the reliability of parameters to be predictive and rationale behind medication but that still needs to be translated into a tailor made treatment plan that fits the individual patient (owner).

After initial assessment it may be necessary to start symptomatic treatment predominantly aimed to rectify secondary changes e.g. fluid deficits.

Addressing an underlying cause should also have high priority to try and prevent further damage. Moreover, even in patients with a known glomerulopathy it is good to be aware of eventually developing complications e.g. side effects of medication/ future comorbidities that may be as important for the long term care.

#### **For more details see**

1. Consensus recommendations for standard therapy of glomerular disease in dogs., IRIS Canine GN Study Group Standard Therapy Subgroup, Brown S, Elliott J, Francey T, Polzin D, Vaden S., J Vet Intern Med. 2013 Nov-Dec;27 Suppl 1:S27-43. doi: 10.1111/jvim.12230.
2. Consensus guidelines for immunosuppressive treatment of dogs with glomerular disease absent a pathologic diagnosis., IRIS Canine GN Study Subgroup on Immunosuppressive Therapy Absent a Pathologic Diagnosis, Pressler B, Vaden S, Gerber B, Langston C, Polzin D., J Vet Intern Med. 2013 Nov-Dec;27 Suppl 1:S55-9. doi: 10.1111/jvim.12222.
3. Consensus recommendations for immunosuppressive treatment of dogs with glomerular disease based on established pathology., IRIS Canine GN Study Group Established Pathology Subgroup, Segev G, Cowgill LD, Heiene R, Labato MA, Polzin DJ., J Vet Intern Med. 2013 Nov-Dec;27 Suppl 1:S44-54. doi: 10.1111/jvim.12228.