

PROGRESSIVE JUVENILE NEPHROPATHY IN AN 11 WEEK OLD BLOODHOUND

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1 Introduction

An 11 week old, female Bloodhound was presented with symptoms of lethargy, stunted growth, vomiting, episodic diarrhea and polydipsia/polyuria. Blood- and urinalysis revealed a severe renal azotemia. Abdominal ultrasound revealed small irregular kidneys with no distinction between cortex and medulla. Based on these findings the dog was diagnosed with severe congenital renal disorder, euthanized and necropsied.

2 Necropsy

The kidneys were small, irregular and on cut section there was no macroscopic difference between cortex and medulla. Other lesions were bilateral sublingual uremic ulcerations and hepatomegaly.



Fig 1: Bilateral irregular kidney's

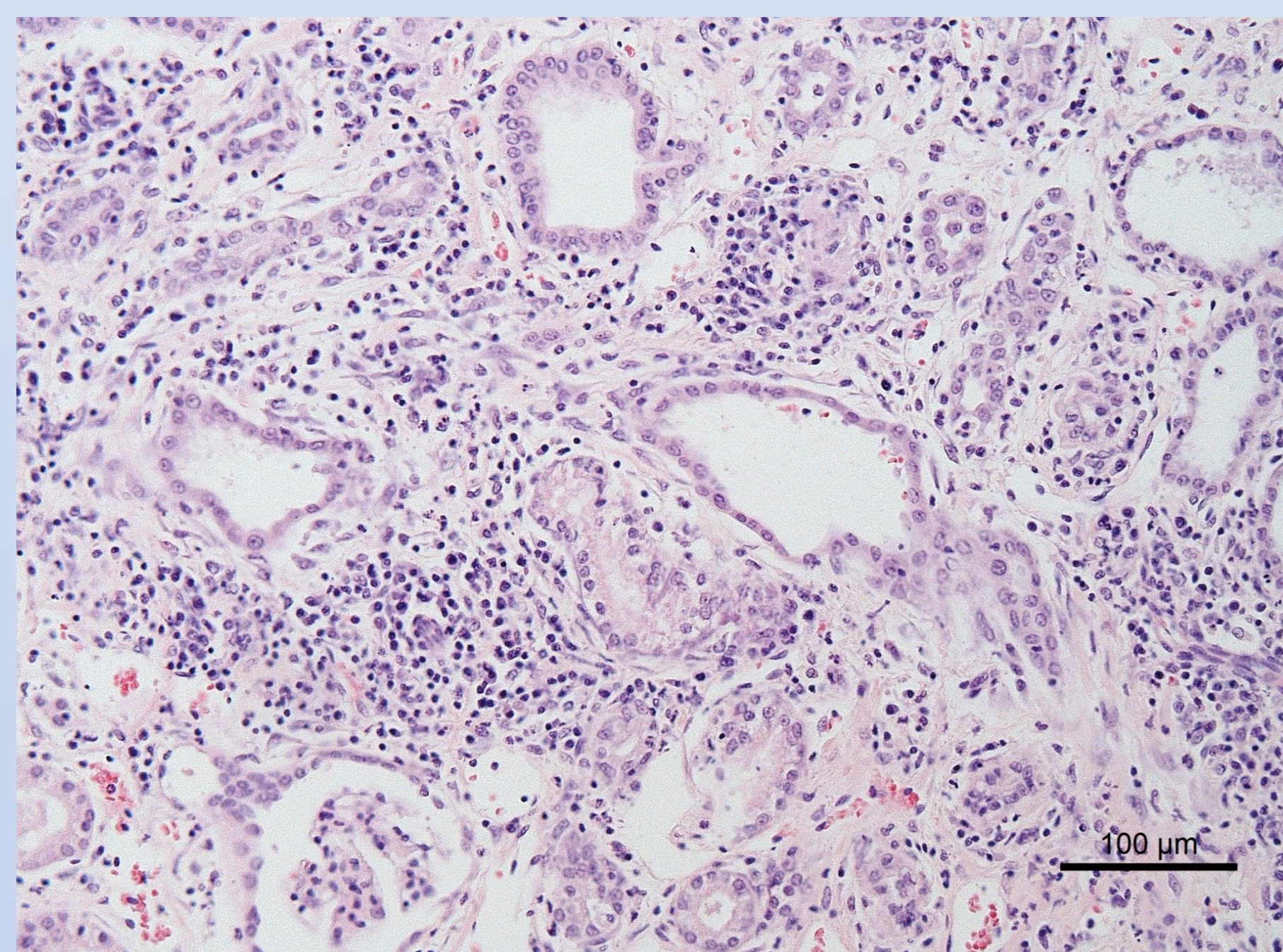


Fig 2: HE-stain kidney:
Interstitial fibrosis with lymphoplasmacytic inflammation and dilated tubules with attenuated epithelium.

3 Histology

The kidneys revealed severe interstitial fibrosis with moderate multifocal lympho-plasmocytic inflammation. The glomeruli were either hypercellular and immature or sclerotic. Tubules were well differentiated and multifocally dilated with attenuated epithelium. Diffusely throughout the parenchyma, a basophilic amorphous material staining positive with von Kossa stain (dystrophic calcification) was present. No significant lesions were observed in samples of lung, spleen, liver, stomach, intestines and lymphnodes.

4 Conclusion

Based on gross and histological findings, the condition resembled progressive juvenile nephropathy. This disease is also referred to as a familial hereditary renal disease. In many dog breeds, a familial tendency is demonstrated. To the authors knowledge this is the first case in a bloodhound and no mode of inheritance has yet been determined.

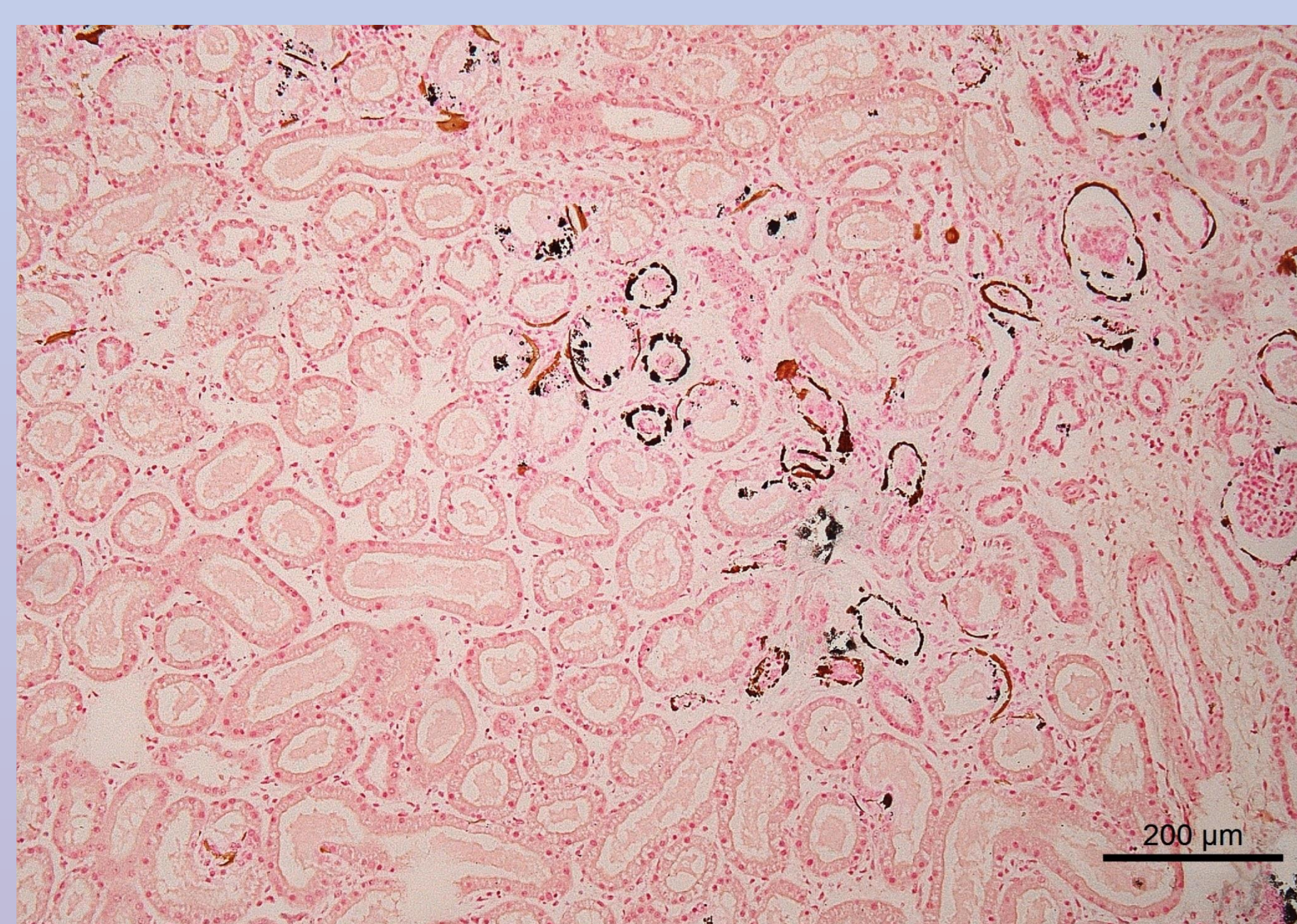


Fig 3: Von Kossa stain kidney:
dystrophic calcification