NEPHROCALCINOSIS AND PROTEINURIA AS SYMPTOMS OF HYPERTENSION IN AN INFANT

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Objective: A case report of a 4-month-old boy with nephrocalcinosis and proteinuria, diagnosed with severe hypertension secondary to middle aortic syndrome (MAS) and bilateral renal artery stenosis.

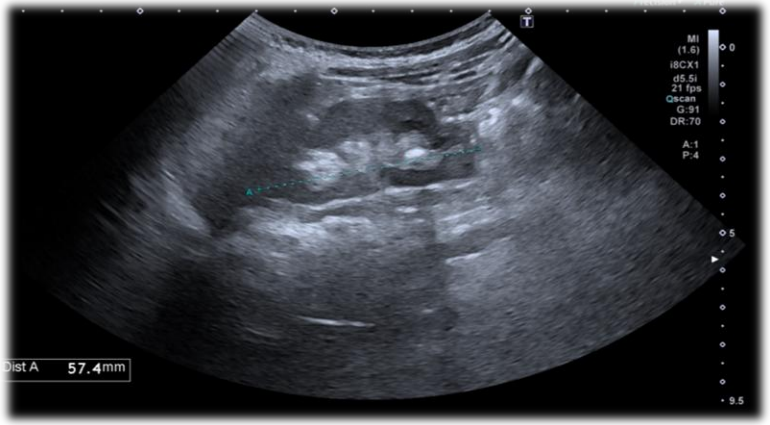

Figure 1. Calcified deposits in right kidney

Material and methods: Initial examination revelead several (5-6) calcified deposits in all calyx groups in the right kidney, nephrocalcinosis of the marginal portions of the left kidney pyramids, hypercalciuria (Ca/creatinine: 2.06 mg/mg), proteinuria (protein/creatinine ratio: 3.3 mg/mg), and kidney size asymmetry (73 mm lef kidney, 53 mm right kidney).

Results:

- Stage 2 HT on admission (exceeded 95th percentile by 23 mmHg)
- Angio-CT revealed MAS with narrowing of other vessels unsuitable for invasive treatment
- Right kidney ERPF reduced to 30%
- 6 oral antihypertensives; ACEI (ramipril) added due to hypertension-mediated organ damage (NT-proBNP 1290 pg/ml)
- Good BP control achieved; NT-proBNP reduced to 509.3 pg/ml
- Improvement in proteinuria (P/C ratio: 0.99 mg/mg) and calciuria (Ca/C ratio: 0.09 mg/mg)

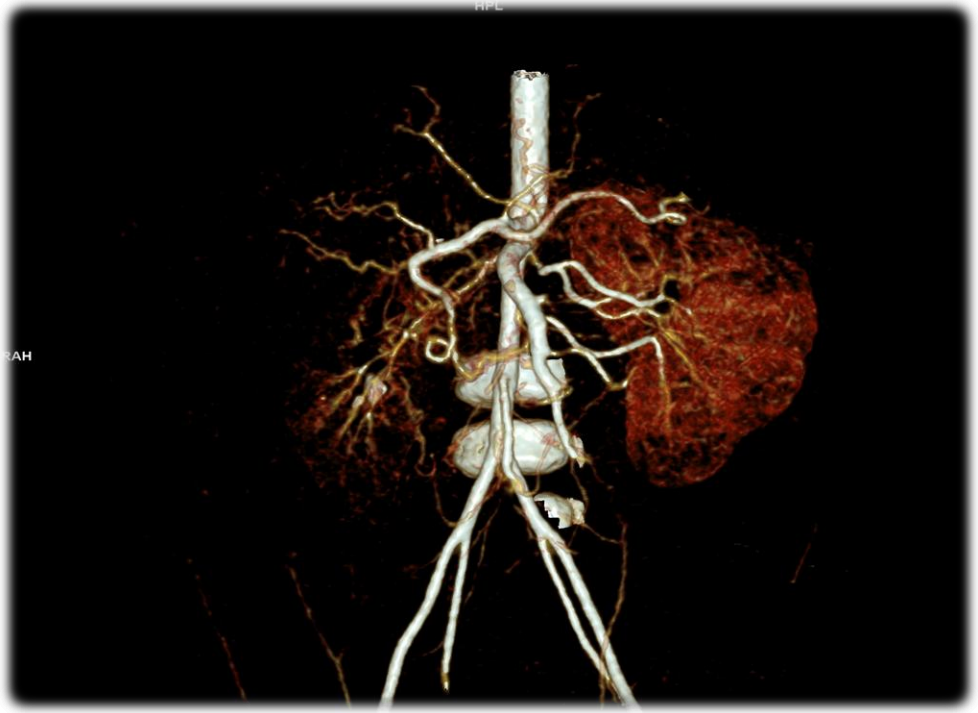

Figure 2. MAS, bilateral renal artery stenosis, superior mesenteric artery, and visceral trunk stenosis (abdominal angio-CT reconstruction)

Conclusions: The case underscores the systemic nature of vascular lesions in fibromuscular dysplasia. It also highlights the initial symptoms (hypercalciuria with urolithiasis/nephrocalcinosis, proteinuria), which were related to pressure diuresis in the course of severe hypertension.

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