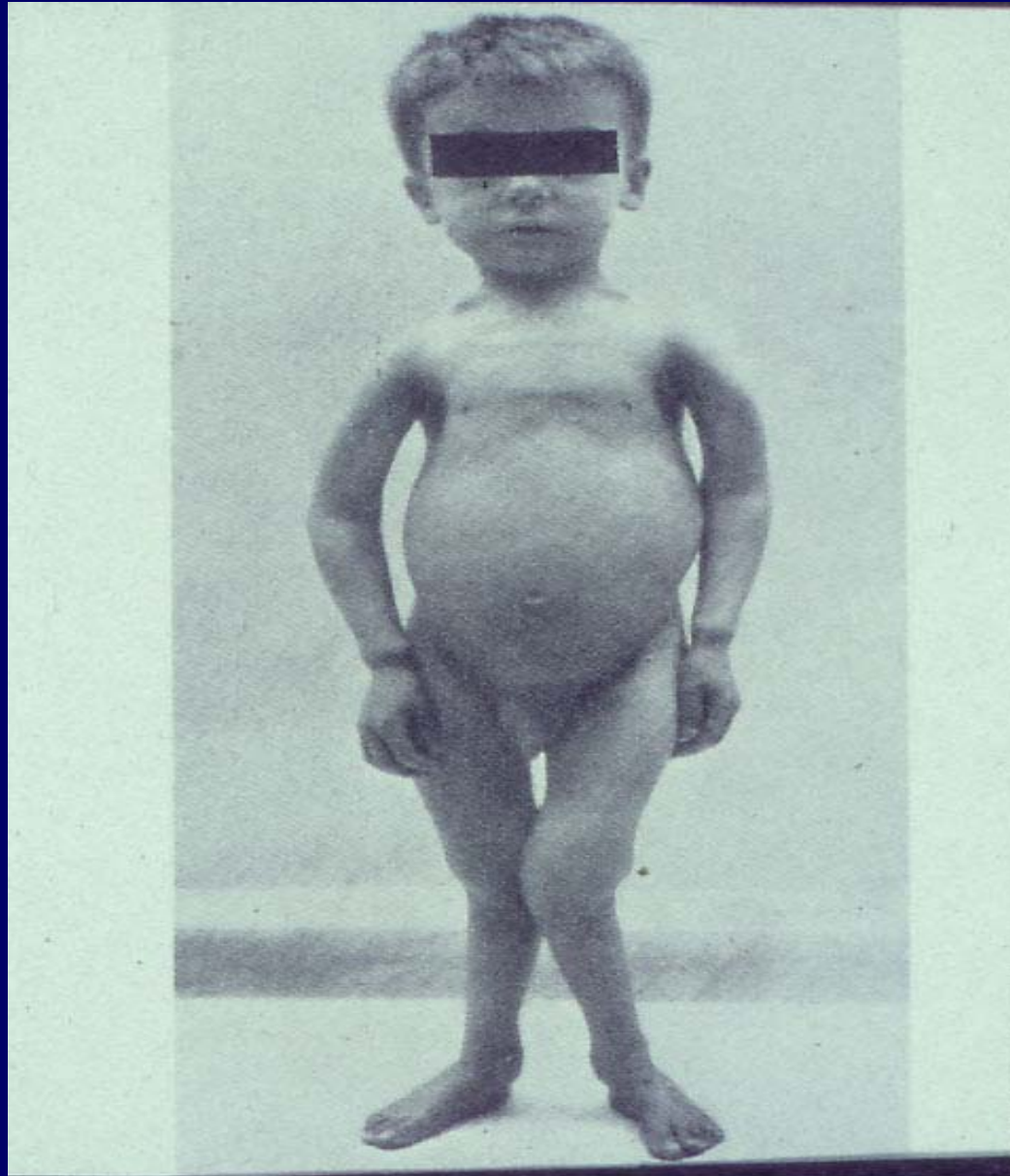
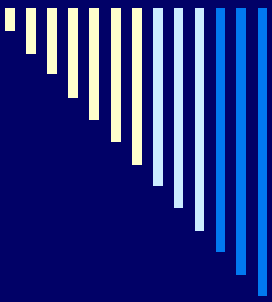


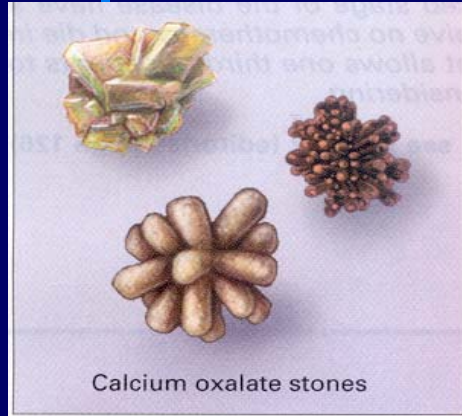
Therapeutic Options in Oxalosis: A Directed Overview

Craig B. Langman, MD

**Isaac A. Abt, MD Professor of Kidney Diseases
Feinberg School of Medicine, Northwestern U.**

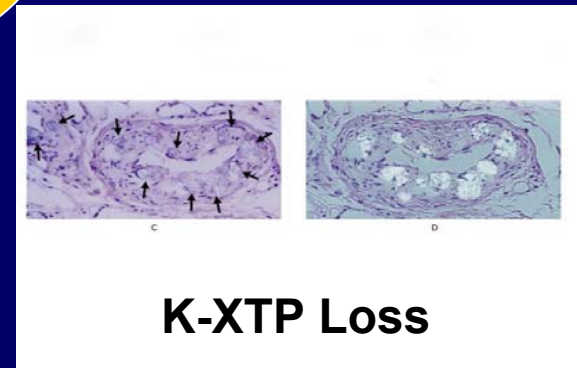


Syndromes in which Oxalosis May Become Apparent



CKD → ESKD

Oxalosis





Nephrolithiasis: Dx Options

- Determination of Hyperoxaluria
 - Normal values hard to decipher
 - Rarely done for first stone evaluations
 - Determination of Glyoxalate, Glycolate excretions
 - Obscure in general stone practices
 - Crystallographic analysis uncertain with Ca-Ox as result.
 - DNA analysis for PH with limited access.
 - Need for Liver Biopsy if PH suspected.
-



Nephrolithiasis: Rx Options

- Goal is to reduce urinary βCaOx .
 - Lowering of Urinary Oxalate
 - Does diet intervention play a role?
 - Limitation of GI absorption ... **B Hoppe, J Lieske**
 - Enhanced facilitated excretion...**M Hatch**
 - Provision of Additional Urinary Alkali
 - Limit metabolic over-production
 - ? determine B_6 responsiveness ... **C. Monico**
 - Solution to Pollution is Dilution
 - [Eliminate concurrent hypercalciuria]
 - [Eradicate concurrent urinary infection]



Nephrolithiasis: Unmet Needs

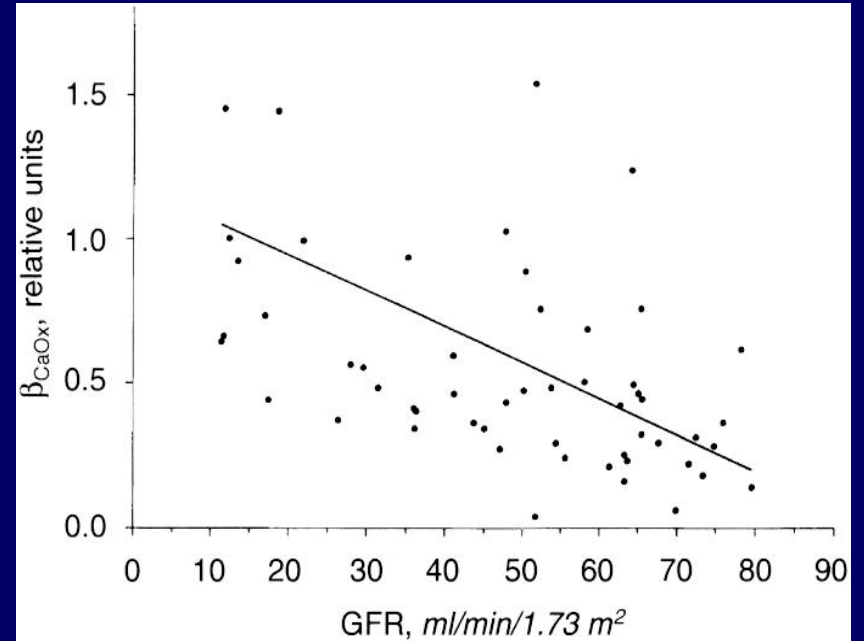
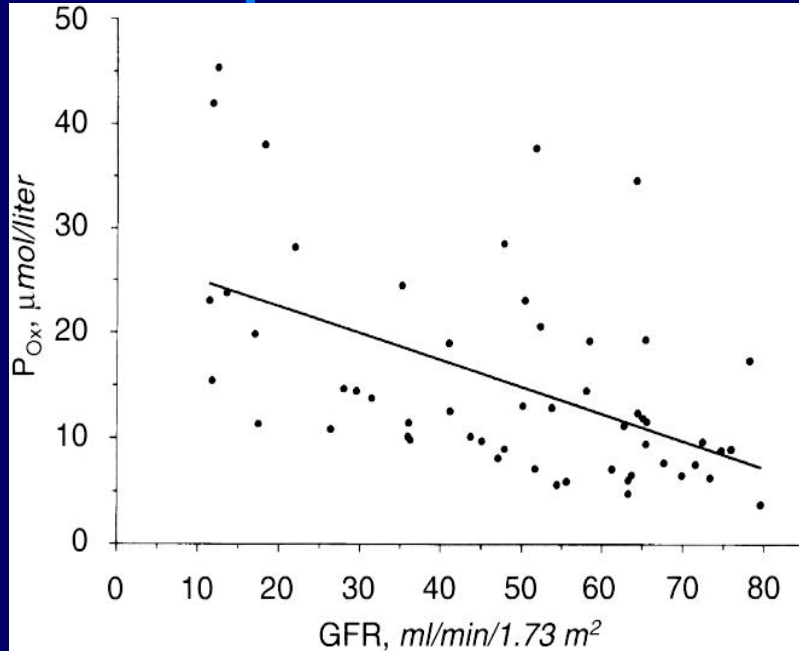
- Understanding site-dependent cell signaling upon exposure to [Ox]...**Verkoelen**
 - Therapeutic Agents to interrupt the site-specific cascade of injury from [Ox]...**Khan**
-



Chronic Kidney Disease

- Increased awareness of PH as a cause.
 - Goal: prevention of progressive loss of kidney filtration function.
 - ? Unique aspects to PH
 - Goal: prevention of progressive deposition of CaOx in body tissues: Oxalosis.
 - Dependent on residual kidney function
-

Plasma [Ox] and β_{CaOx} increases with decline in GFR

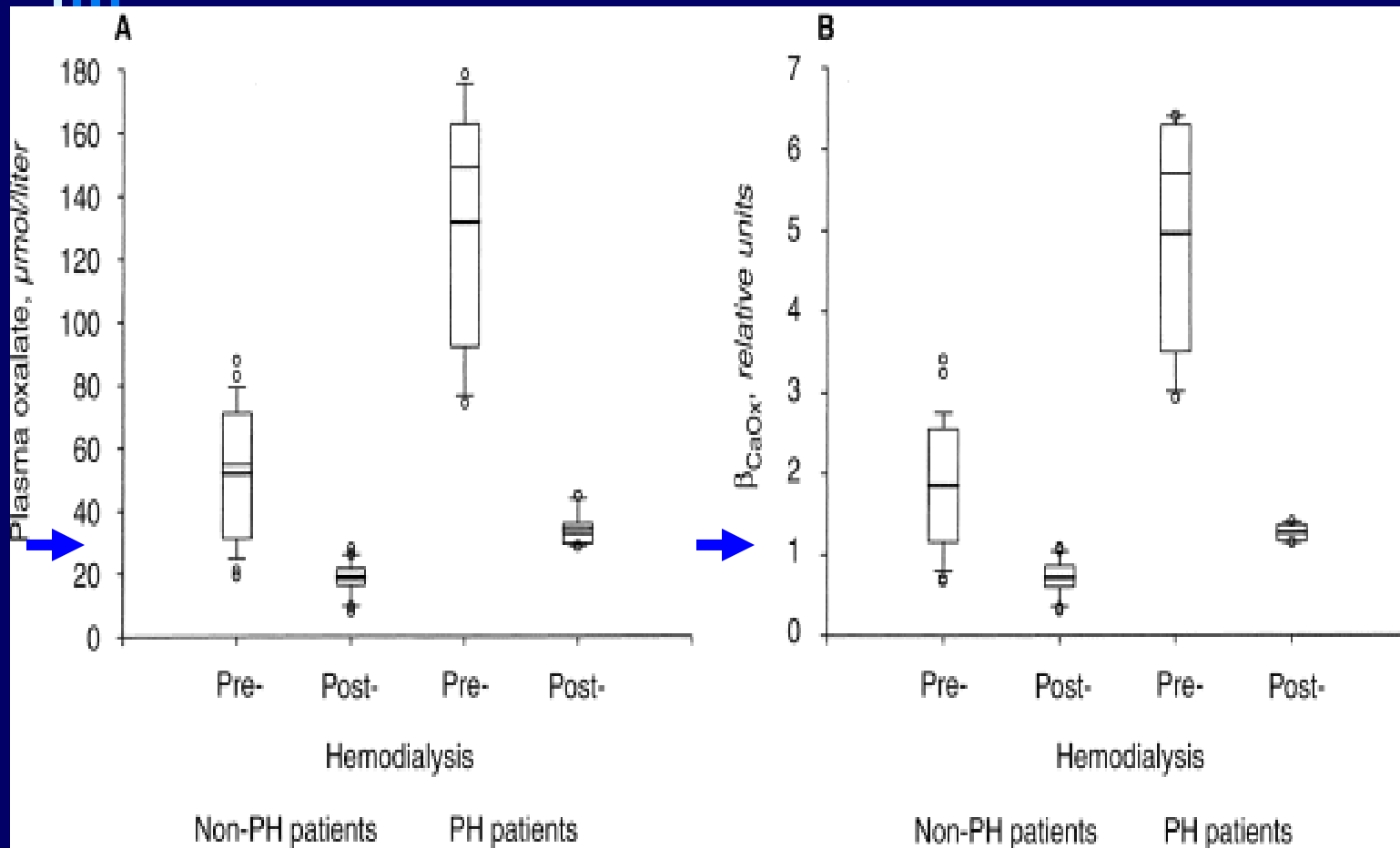




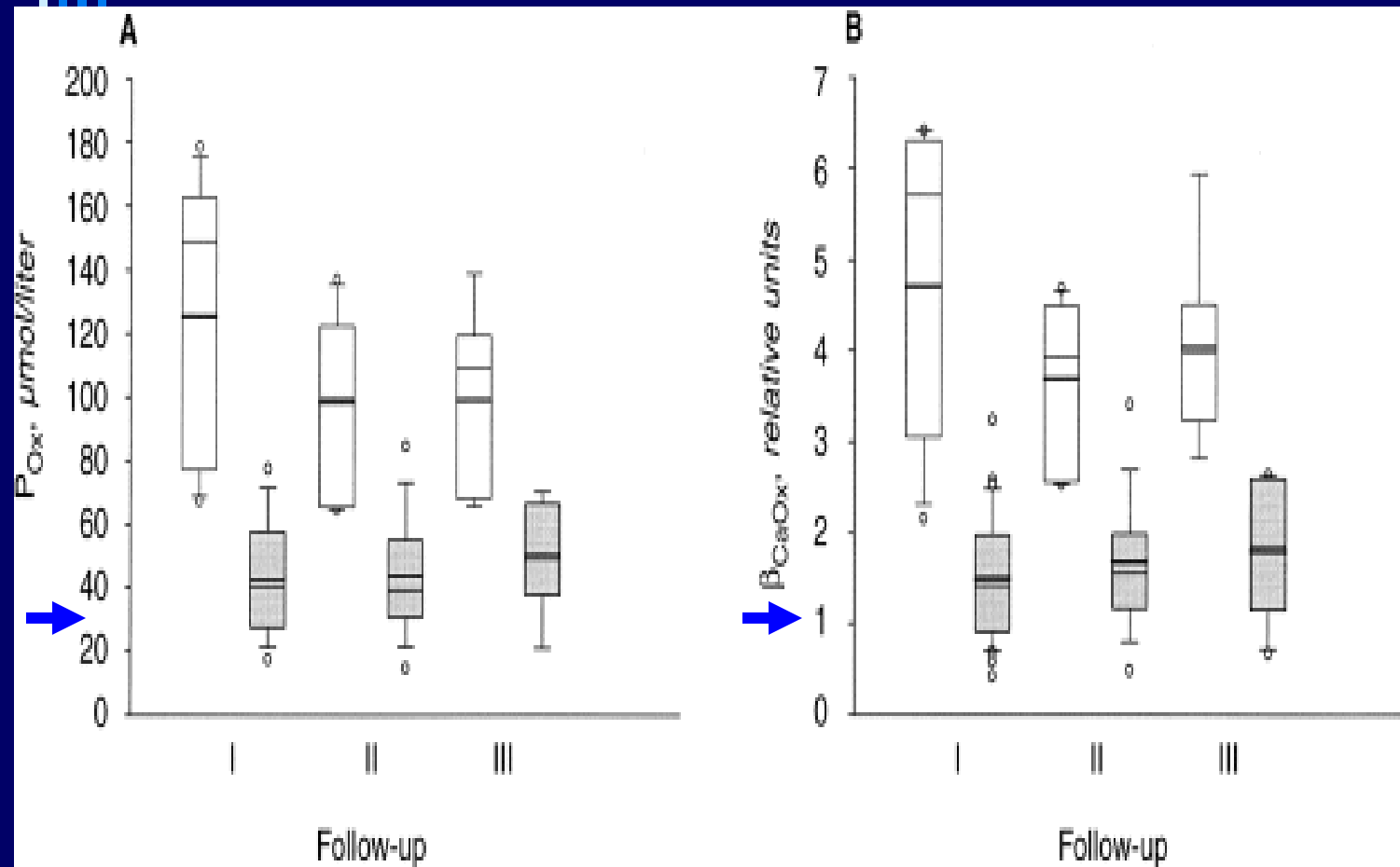
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-

Routine HD leaves PH patients with supersaturated $\beta\text{Ca-Ox}$



Intensive HD does not reduce β Ca-Ox

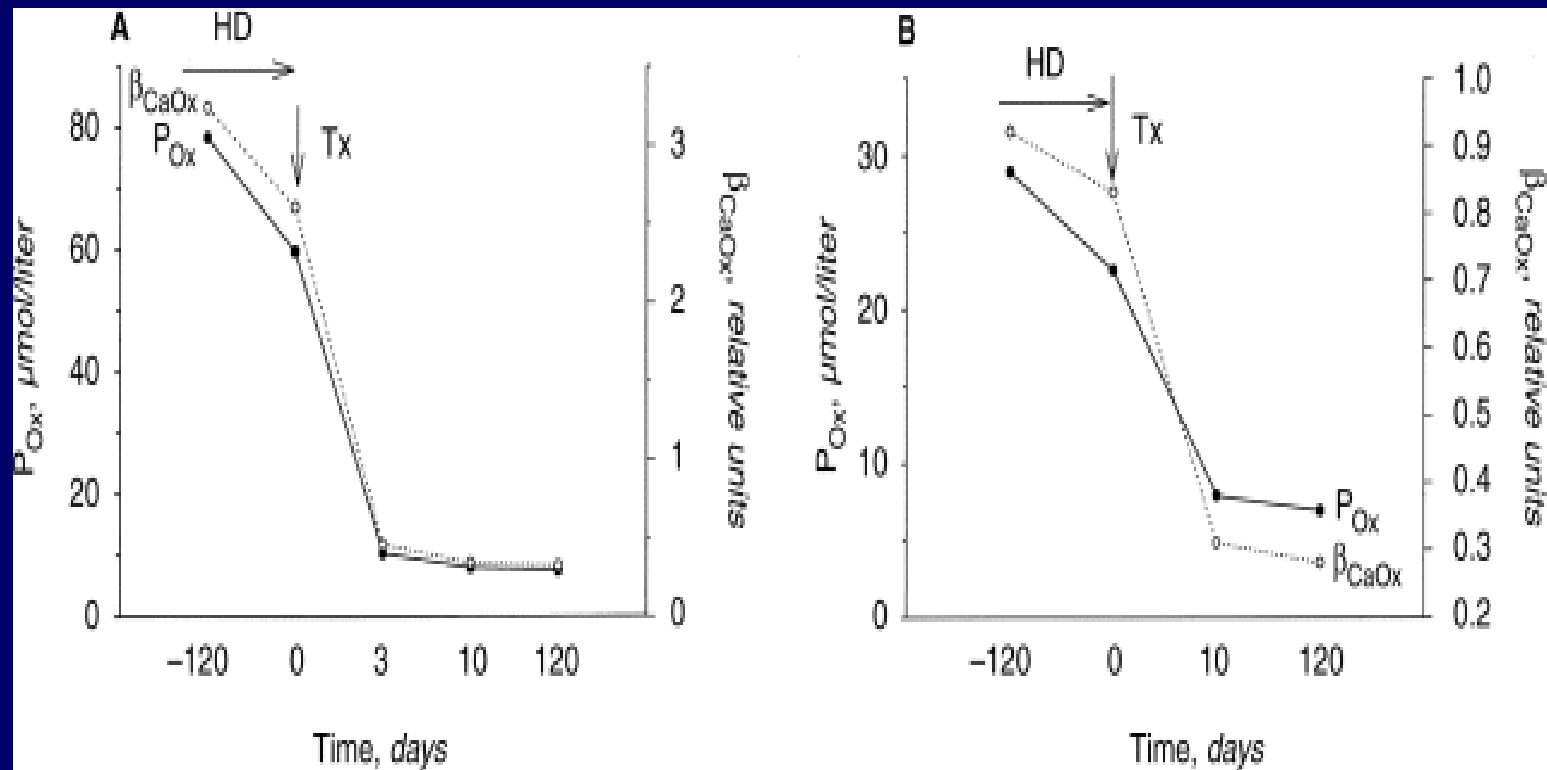




Chronic Kidney Disease

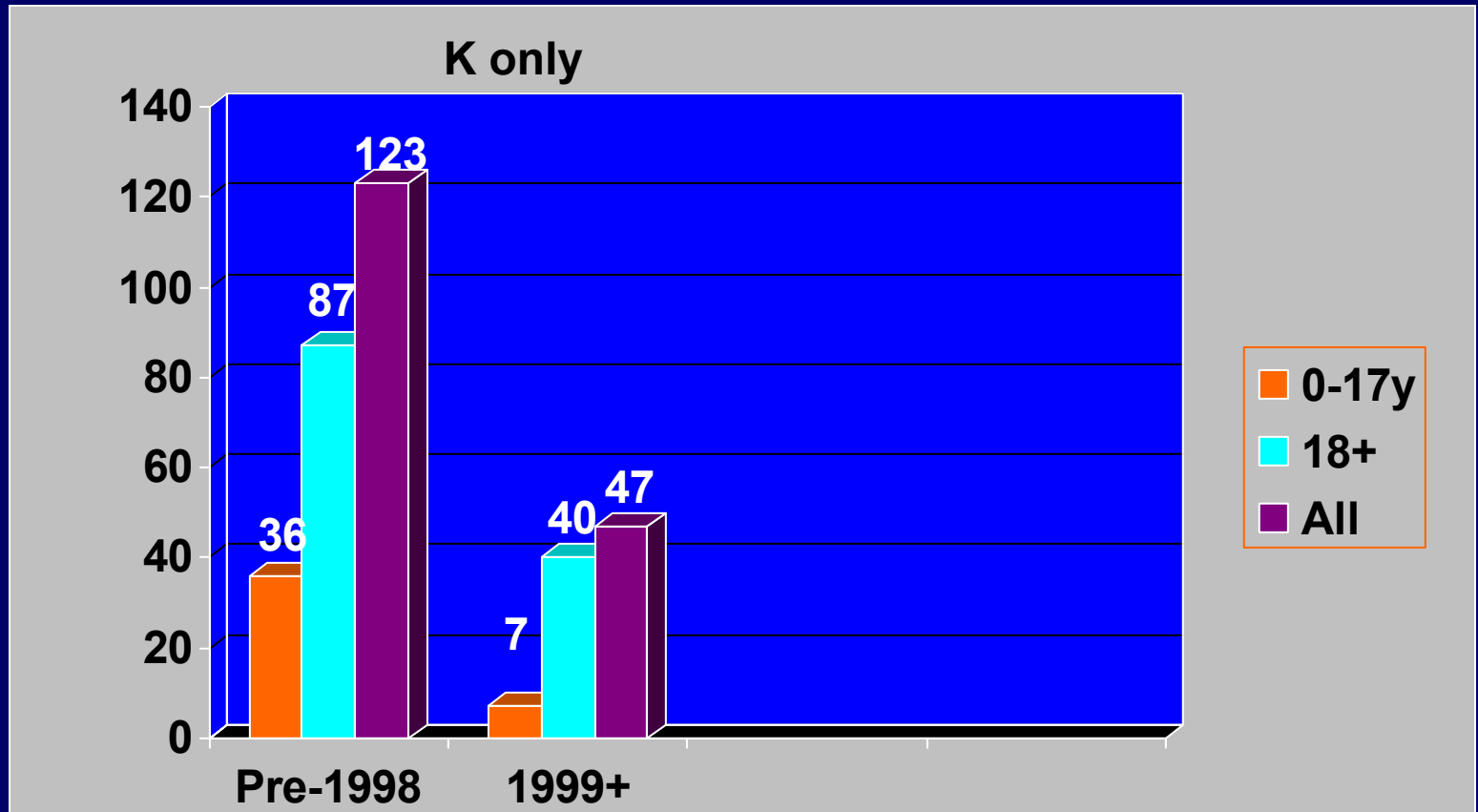
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 - Timing of “enzyme” replacement therapy
 - Timing of kidney XTP ... **J Scheinmann**
-

Liver XTP reduces β CaOx successfully!

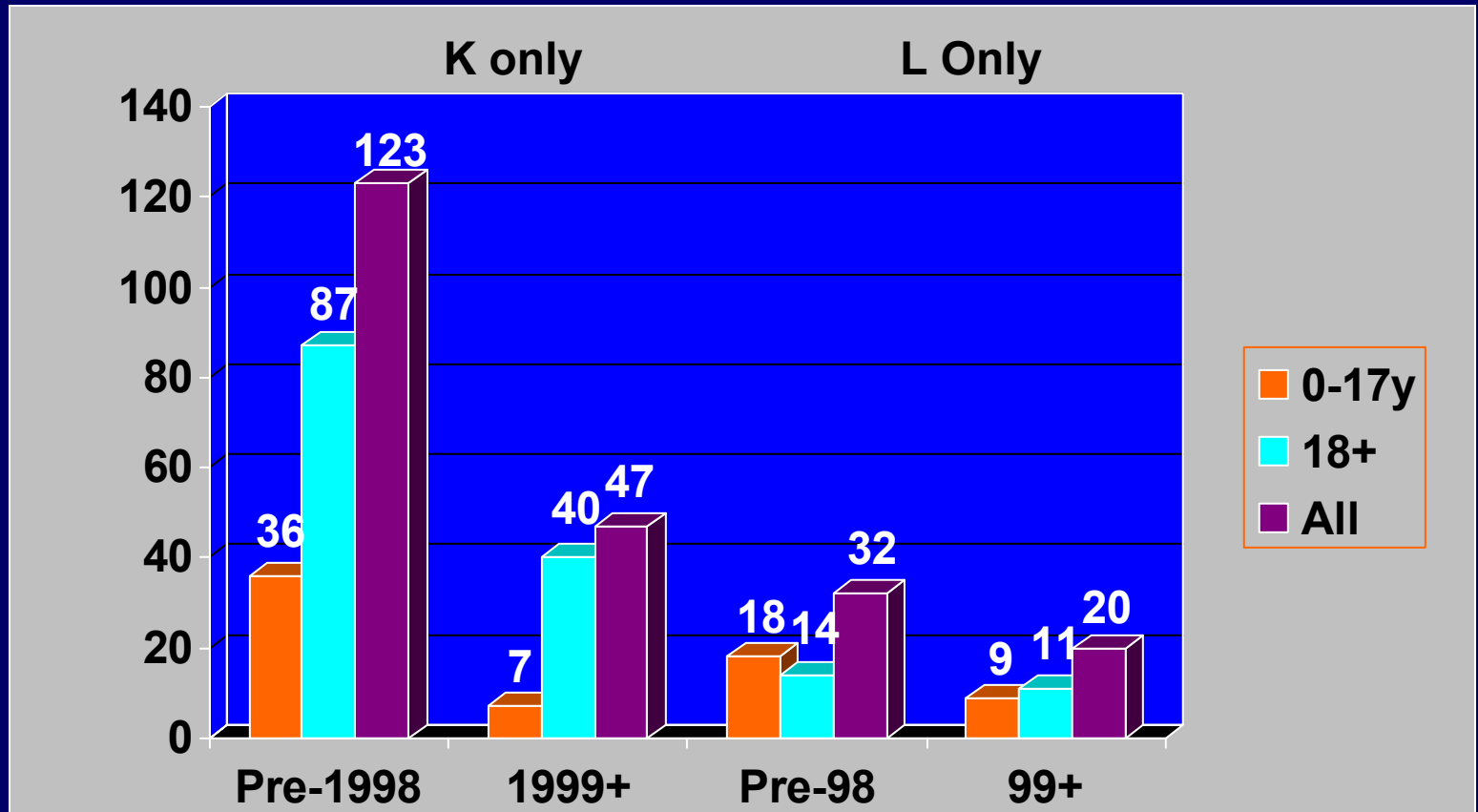


•Hoppe & Langman, KI, 1999

Timing and Nature of XTPs in PH



Timing and Nature of XTPs in PH



Timing and Nature of XTPs in PH

