55% HEPARIN REDUCTION USING CITRATE DIALYSATE (CITRASATE®)

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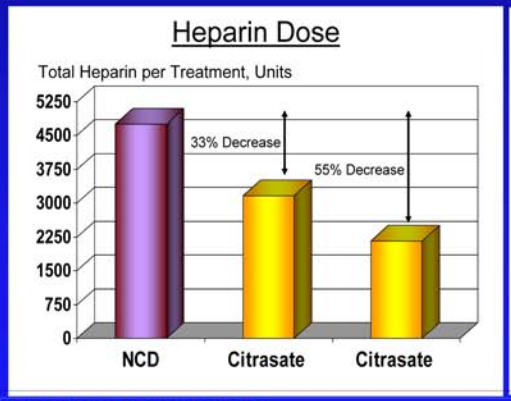
BACKGROUND AND AIMS:

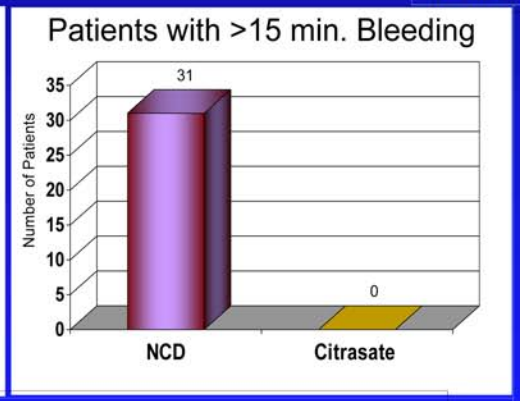
- Systemic heparinization in hemodialysis patients increases the risk of bleeding.
  - ►Often manifesting as prolonged bleeding from access needle-sites after the removal of needles.
- Dialysate containing citrate, Citrasate® (CD) has been reported to prevent clotting of dialysis circuit (Tu et al Dialysis & Transplantation, 29: 620, 2000).
- Aim of the study was to assess whether CD would permit a **safe** reduction in heparin dose and would **reduce** bleeding episodes without increased clotting (maintaining the dose of dialysis)

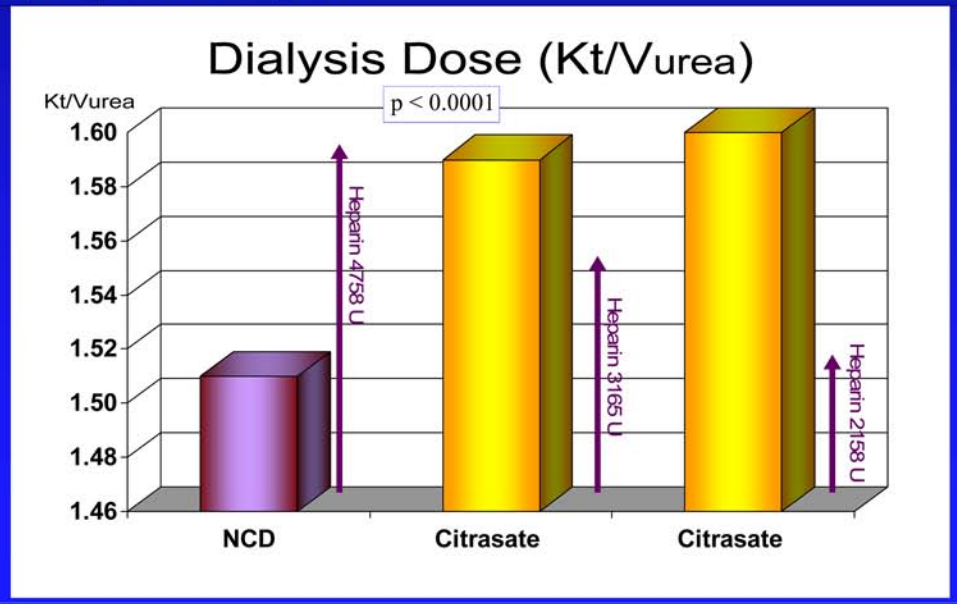
METHODS:

- ► Thirty one chronic HD patients were identified as having postdialysis bleeding for >15 minutes from needle sites.
- ► Using standard acetate containing bicarbonate non-citrate dialysate (NCD) with either Optiflux NR 160 or NR 180 dialyzers.
- ► All patients were switched to CD (Citrasate®, Advanced Renal Technologies, Belleveue, WA, USA) without changing Qb, Qd, treatment duration or other paramaters and followed for 2 months.
- ► After 2 months each patient's heparin dose was reduced by 33% for 3 months and, after assessing adequate dialysis, the dose was further reduced by another 33% (55% reduction from initial dose) for another 3 months.
- ► Dialyzer, tubings and air-traps were observed for clotting
- ►Patient observation was used to identify post-dilaysis bleeding from needle sites (>15 minutes)
- ► The adequacy of dialysis was measured by Kt/Vurea.

RESULTS:







SUMMARY & CONCLUSIONS:

1. Use of citrate dialysate permitted a 55% reduction in the dose of heparin during hemodialysis.
2. Reduction in Heparin resulted in a decrease in post-dialysis bleeding from needle site to less than 15 minutes in all 31 patients.
3. Heparin reduction (55%) was not associated with any clotting of dialysis circuit with Citrasate®.
4. Citrasate® was associated with an increase in the dose of dialysis despite a 55% decrease in heparin.