



Effect on kidney function recovery guiding decongestion with VExUS in patients with cardiorenal syndrome 1, a randomized control trial



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Abstract

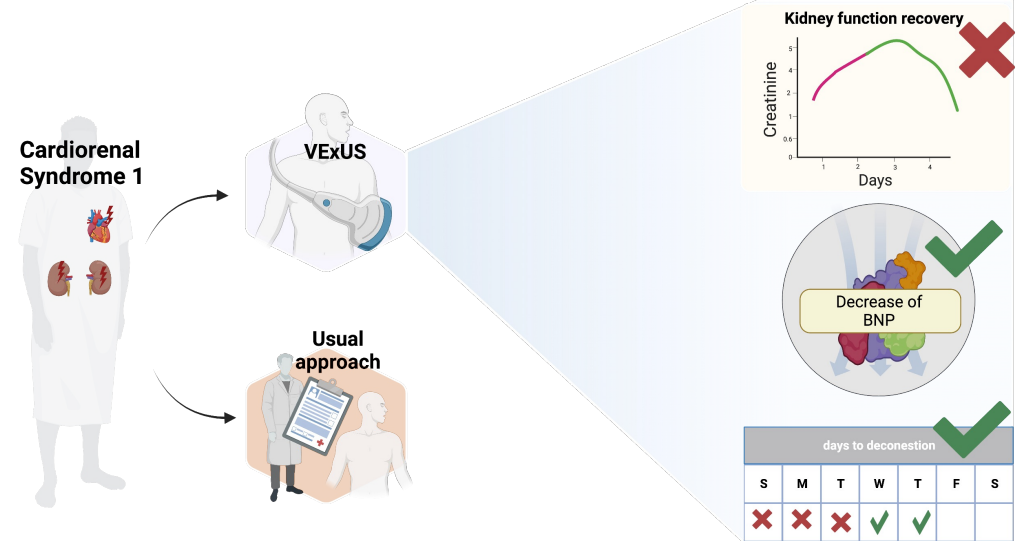
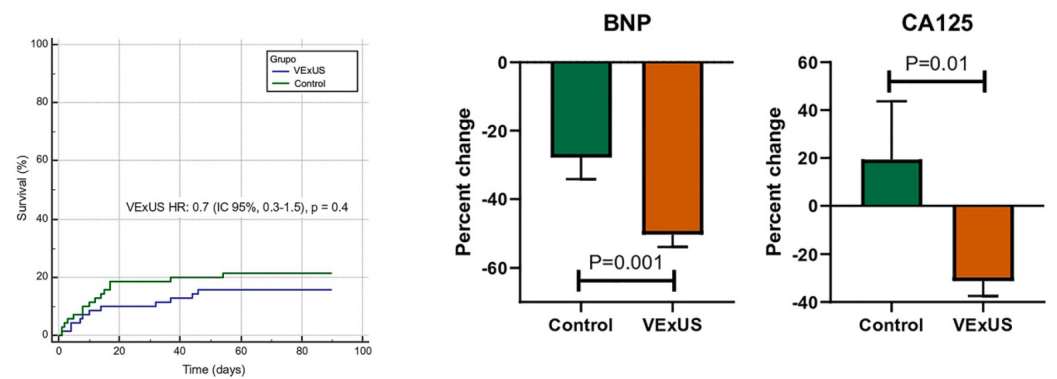
In cardiorenal syndrome type 1 (CRS1) vascular congestion is central to the pathophysiology of heart failure and thus a key target for management. The Venus Evaluation by Ultrasound System (VExUS) could guide decongestion effectively and thereby improve outcomes. In cardiorenal syndrome type 1 (CRS1) vascular congestion is central to the pathophysiology of heart failure and thus a key target for management. The Venus Evaluation by Ultrasound System (VExUS) could guide decongestion effectively and thereby improve outcomes.

Results

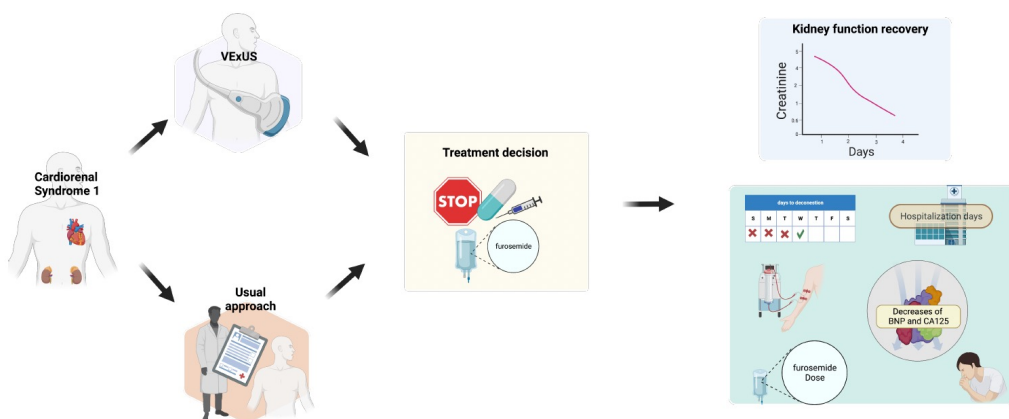
140 patients were randomized 1:1 (70 in the VExUS and 70 in the Control group). KFR was not statistically different between groups. However, VExUS improved more than twice the odds to achieve decongestion (OR 2.6, 95% CI 1.9-3.0, p=0.01) and the odds to reach a decrease of BNP >30% (OR 2.4; 95% CI 1.3-4.1, p = 0.01). The survival at 90 days, re-congestion and CA-125 were similar between groups.

Methods and Materials

In this randomized clinical trial, patients with CRS1 were randomized to guide decongestion with VExUS compared to usual clinical evaluation. The primary endpoint was to assess kidney function recovery (KFR), and the key secondary endpoint was decongestion evaluated by physical examination and changes in brain natriuretic peptide (BNP) and CA-125. Exploratory endpoints included days of hospitalization and mortality.



Study design



Conclusions

In patients with CRS1, we observed that VExUS-guided decongestion did not improve the probability of KFR but improved the odds to achieve decongestion Clinicaltrials.gov identifier: NCT05927285

Published: Cardiorenal Med. 2024.

doi: 10.1159/000535641. Epub ahead of print. PMID: 38061346.



THE 29TH INTERNATIONAL CONFERENCE ON ADVANCES IN CRITICAL CARE NEPHROLOGY AKI & CRRT 2024

MARCH 12-15, 2024 SAN DIEGO, CALIFORNIA