ISRCTN27844532 https://doi.org/10.1186/ISRCTN27844532

Correction of acidosis in hemodialysis patients. Effects on protein metabolism, investigated by tracer technique and messenger-ribonucleic acid determination for ubuquitin and proteasome subunits.

Submission date 29/03/2006	**Recruitment status** No longer recruiting
Registration date 03/07/2006	**Overall study status** Completed
Last Edited 26/07/2007	**Condition category** Nutritional, Metabolic, Endocrine

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Study information

Scientific Title

Study objectives
Metabolic acidosis stimulates muscle protein breakdown, correction of acidosis results in decreased protein breakdown.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved by the Ethics Committee of Karolinska Institute at Huddinge University Hospital on 11/01/1993, reference number: 196/96

Primary study design
Interventional

Study design
Randomised, controlled, crossover design

Study type(s)
Treatment

Health condition(s) or problem(s) studied
End-stage renal failure

Interventions
Adjustments of acid-base balance - in each patient, protein turnover will be measured twice, at a standard bicarbonate concentration of <19 mmol/l and >25 mmol/l respectively, with an interval between the two measurements (random order) of 3-4 weeks. The acid-base status will be altered by adjusting the dose of bicarbonate (oral and/or via dialysis) and protein turnover will be measured when the predialysis bicarbonate level have been low or normal for at least one week.

Intervention Type
Other

Phase
Not Specified

Primary outcome(s)
Muscle protein turnover

Key secondary outcome(s)
1. messenger-Ribonucleic Acid (mRNA) for ubuquitin and proteasome subunits
2. Plasma and muscle intracellular amino acid concentrations
3. Serum albumin

Completion date
31/12/1998

Eligibility

Key inclusion criteria
1. Clinically stable hemodialysis patients
2. >18 Years of age

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Sex
All

Key exclusion criteria
1. Clinically obvious malnutrition
2. Ongoing infection
3. Diabetes mellitus
4. Untreated congestive heart failure
5. Treatment with corticosteroids or other immunosuppressive agents

Date of first enrolment
01/04/1997

Date of final enrolment
31/12/1998

Locations

Countries of recruitment
Sweden

Study participating centre
Karolinska University Hospital
Stockholm
Sweden
SE-171 76

Sponsor information

Organisation
Karolinska University Hospital (Sweden)

ROR
https://ror.org/00m8d6786

Funder(s)

Funder type
Government

Funder Name
Swedish Medical Research Council (ref: 11243 and 04210)

Funder Name
Gambro AB

Funder Name
Baxter Inc.

Funder Name
U.S. National Institutes of Health (R01 DK37175)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	Results:	01/09/2006		Yes	No