THE USE OF PHOSPHATE BINDING AGENTS IS ASSOCIATED WITH LOWER MORTALITY: RESULTS FROM THE COSMOS STUDY

Jorge B Cannata-Andia (Chairman) on behalf of the COSMOS investigators, Head of the Bone and Mineral Research Unit. Hospital Universitario Central de Asturias; Full Professor of Medicine - Universidad de Oviedo, Spain

Hyperphosphataemia has been associated with higher mortality risk in both the general population and in CKD patients, but particularly in hemodialysis cases (HD). The use of phosphate binding agents (PBAs) appears to reduce that risk. The aim of the COSMOS study (Current Management Of Secondary Hyperparathyroidism – a Multicenter Observational Study) was to investigate the effect of the use of phosphate binders on mortality.

COSMOS is a multicentre, open-label, prospective observational study with 36 months of follow-up carried out with 6321 patients from 220 centres in 20 European countries. Facilities and patients were identified using a stratified, random selection method. Demographics, medical records, routinely collected biochemical laboratory parameters and concomitant therapies were collected every 6 months during 42 months, starting 6 months before the baseline assessment.

Cox’ proportional hazard regression with time-dependent covariates was used to study the association between mortality rate and the use of phosphate binders. Use of different phosphate binders in single or combined therapy was analysed.

Serum phosphorous >6.5 mg/dL was associated with a 30% increase in mortality risk, irrespective of multivariate adjustment. All Phosphate binders (except phosphate binders containing aluminium) were associated with a significantly lower all-cause mortality risk.
ranging from 0.33 to 0.54 HR (unadjusted), (0.46 to 0.63 HR (model 1), 0.43 to 0.66 HR (model 2) and 0.46 to 0.69 HR (model 3). Some therapy combinations using more than one phosphate binder were also associated with lower overall and cardiovascular mortality risk.

In summary, the COSMOS study showed for a representative European HD population that high serum phosphorous (>6.5 mg/dL) is associated with greater mortality. The use of phosphate binders either alone or in combination was associated with significantly lower all-cause mortality risk, independently of confounders and the use of other therapies.

Study supported by Amgen and Fundación Renal Íñigo Álvarez de Toledo

For further information please contact
ERA-EDTA Congress 2012 Press Office

albersconcept
Dr. Bettina Albers
Jakobstrasse 38
D-99423 Weimar
press@era-edta.org
Tel.: +49(0)3643/ 776423
Fax: +49(0)3643/ 776452.