

INTRADIALYTIC PARENTERAL NUTRITION AS FIRST CHOICE TREATMENT IN PROTEIN-ENERGY WASTING HAEMODIALYSIS PATIENTS: RESULTS FROM A LONG-TERM PROSPECTIVE STUDY

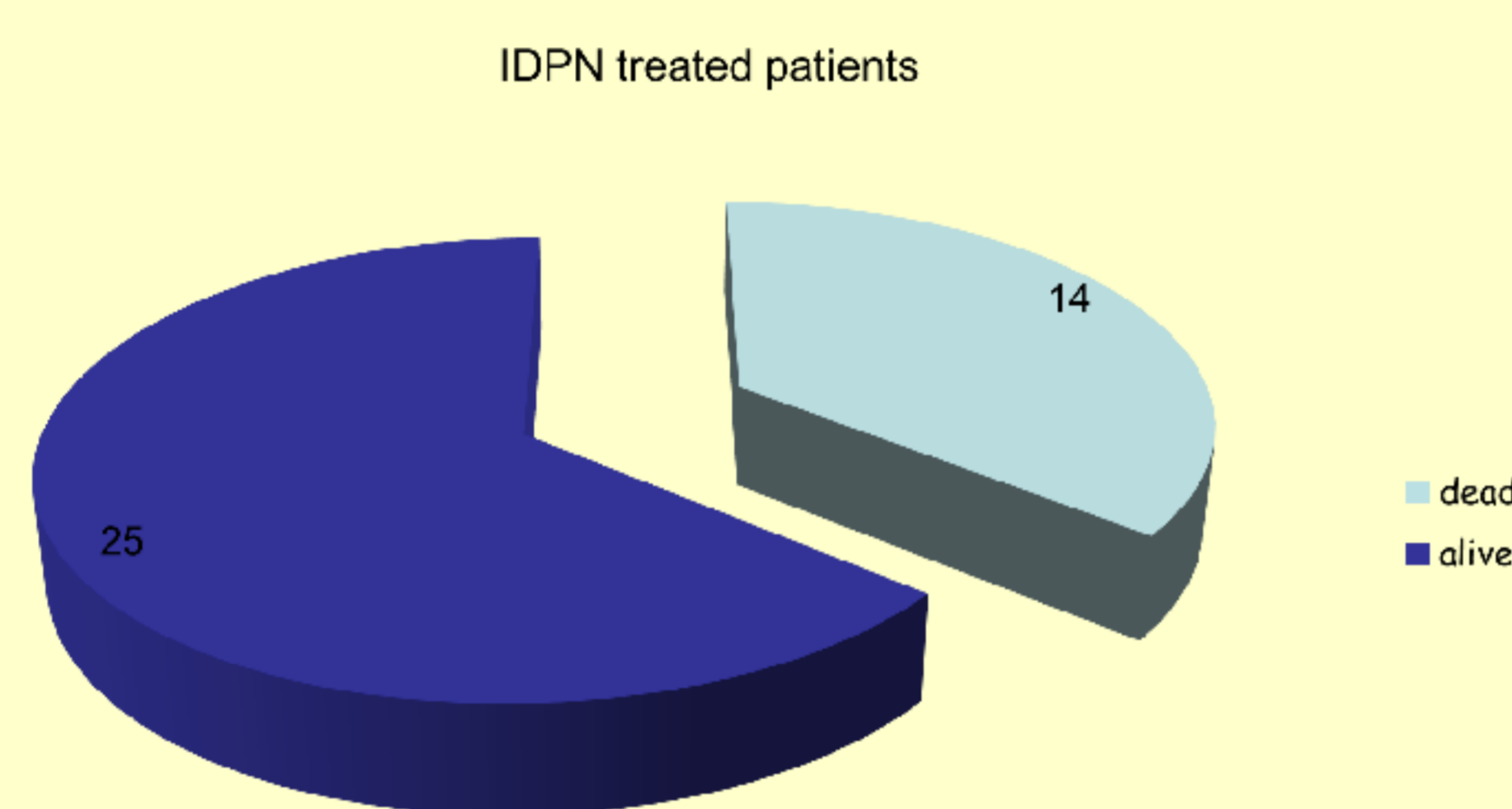
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OBJECTIVES

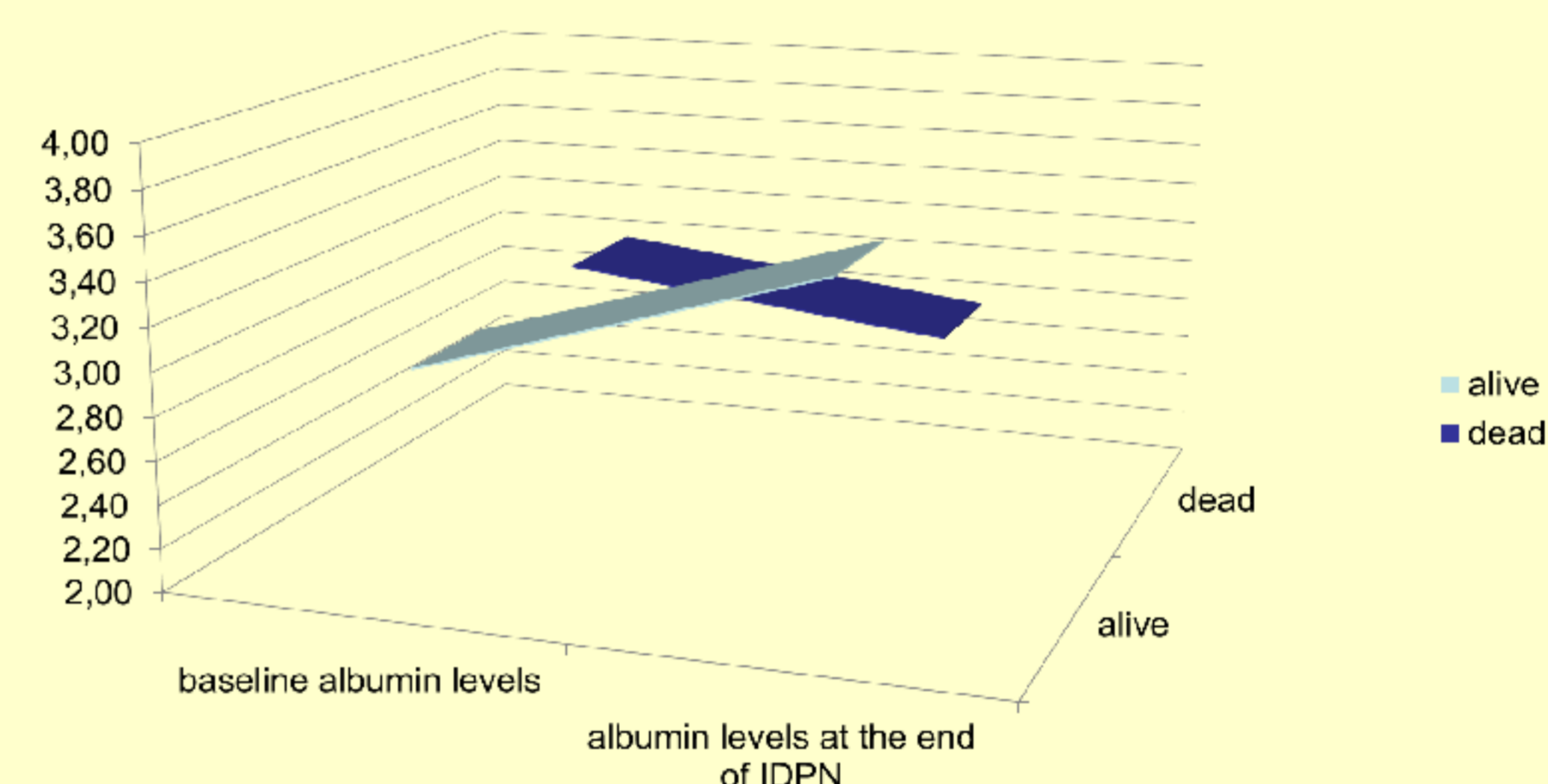
A recent survey in our area (1) has shown that 21% of dialysis patients may be affected by protein-energy wasting. Dietary counselling, oral nutritional supplements and enteral nutrition may be the first choice treatment in protein-energy wasting hemodialysis patients, but rather frequently these treatments meet a lot of problems. Some years ago a large trial showed that intradialytic parenteral nutrition (IDPN) with oral nutritional supplements may be useful to improve biochemical parameters and outcomes of dialysis patients (2).

METHODS

About 4 years ago we started a clinical study using alone IDPN, as first choice treatment, in protein-energy wasting maintenance hemodialysis patients. We performed a long-term, prospective, observational study. We used biochemical parameters, anthropometric data and bioimpedentiometry to identify malnourished patients. We treated these patients with thrice weekly IDPN. We evaluated the effects of IDPN on laboratory parameters and clinical outcomes.



Figures 1 & 2



RESULTS

We performed 2830 IDPN treatments in 39 protein-energy wasting hemodialysis patients. 3 patients repeated the cycle of IDPN treatment for 2 times during the study. The mean time of IDPN treatment was 165 days (11-473 days). We found an improvement of biochemical parameters during IDPN and, for instance, serum albumin levels increased from 30 g/L at baseline to 34 g/L at the end of IDPN therapy ($p < 0.05$). 14 patients on IDPN treatment had a fatal outcome, while about two thirds of patients ($n = 25$) had beneficial effects (figure 1). Albumin levels decreased in patients with a fatal outcome (-13%), while these values increased in patients with a positive outcome (+17%). (figure 2)

CONCLUSIONS

IDPN treatment is a safe, simple therapeutic strategy for improving biochemical parameters and outcome of protein-energy wasting hemodialysis patients. We think that it is time to design a multicenter trial to analyze the effects of IDPN on these patients.

References

1. F Conte, M Righetti, A Limido on behalf of the Lombardy Section of the Italian Society of Nephrology. A survey on protein energy wasting dialysis patients. EDTA Congress 2014
2. Cano N et al. J Am Soc Nephrol 2007; 18: 2583-2591

