

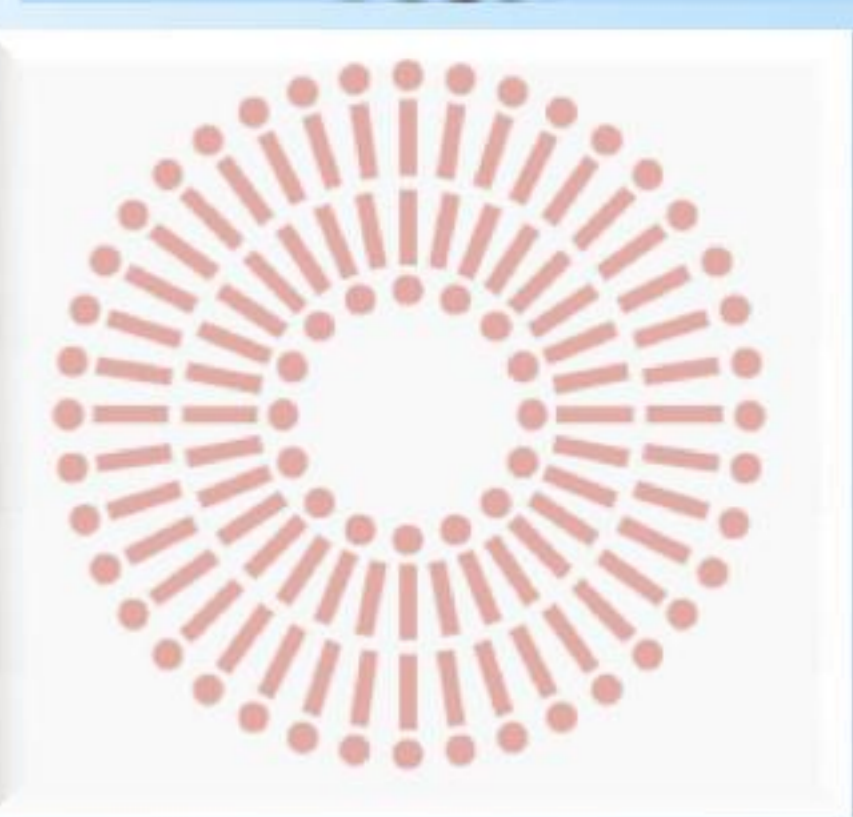
# IS LIPOSOMAL IRON GOOD ALTERNATIVE OVER IV IRON FOR MAINTENANCE THERAPY IN CKD PATIENTS



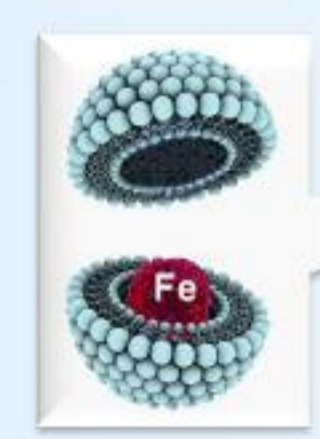
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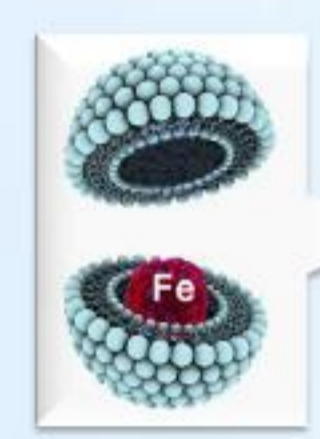
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**INTRODUCTION AND AIMS:** After some pivotal studies about ESA therapy, current guidelines support the use of IV iron pushing the upper limits of recommended values if iron indices. Still, recent randomized trials warn that the use of IV iron may be associated with increased oxidative stress, susceptibility to infection, increased CV Mb and even may promote vascular calcifications. The present study was aimed to analyze if liposomal form of iron is a good alternative for maintaining iron stores in pre-dialysis patients.



**METHODS:** This pilot study included 31 consecutive CKD patients, 70±14 years old, Stage 3 and 4 CKD (mean CrCl 20.5±10.4 ml/min) who were treated with ESA. During 6-month period they were treated with fixed dose of liposomal iron ultradispersed in sucrose esters of fatty acids (Sucrosomial® Iron, Sideral Forte, 30 mg mg/day) independently of initial iron stores. Iron indices were followed after two, four and six months as well as CRP, iPTH, albumin and ESA dose. In addition, patients completed Gastrointestinal Symptom Rating Scale (GSRS) questionnaire at the start/end of treatment concerning the presence and severity of five dimensions of GI symptoms: reflux, indigestion, abdominal pain, constipation and diarrhea.

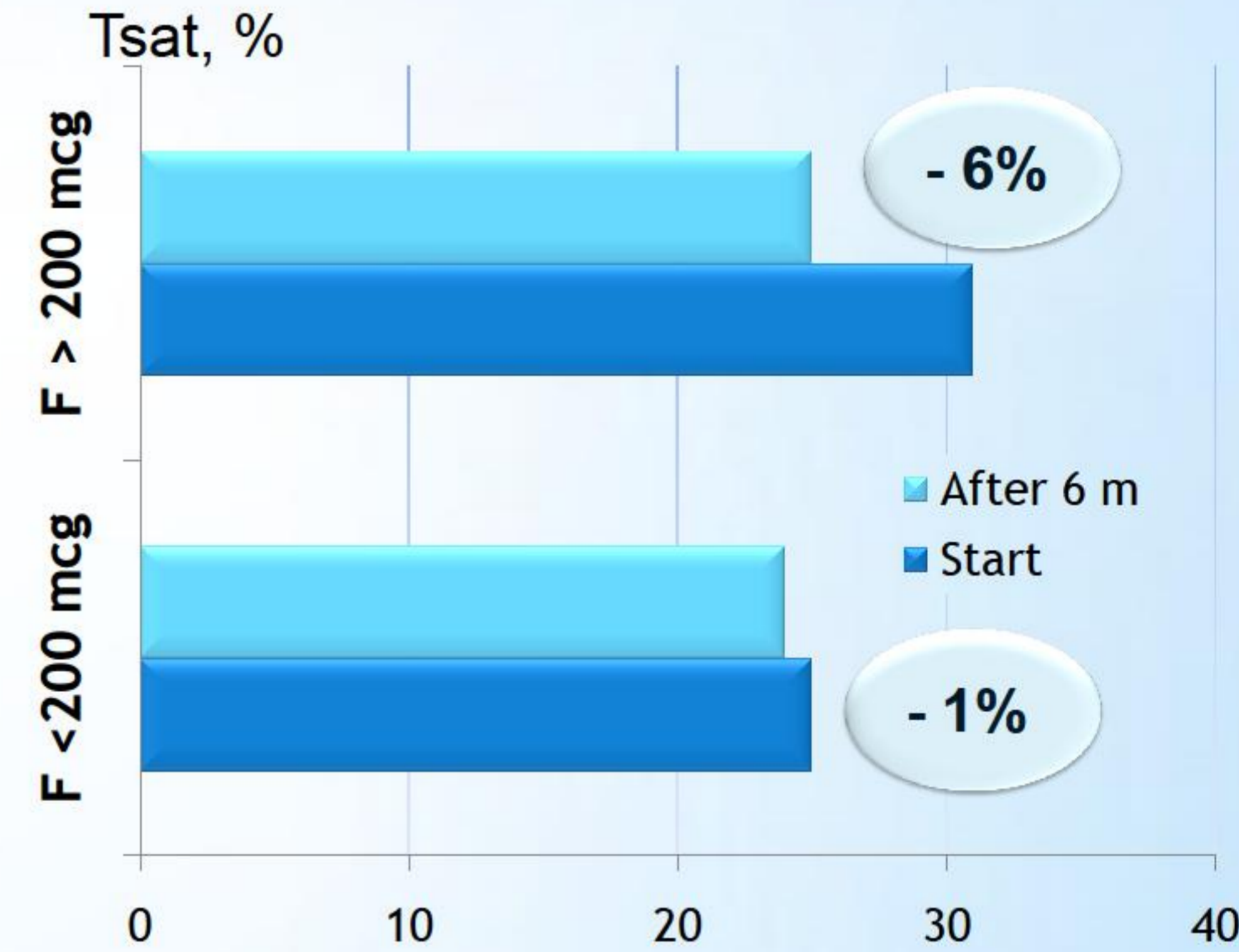
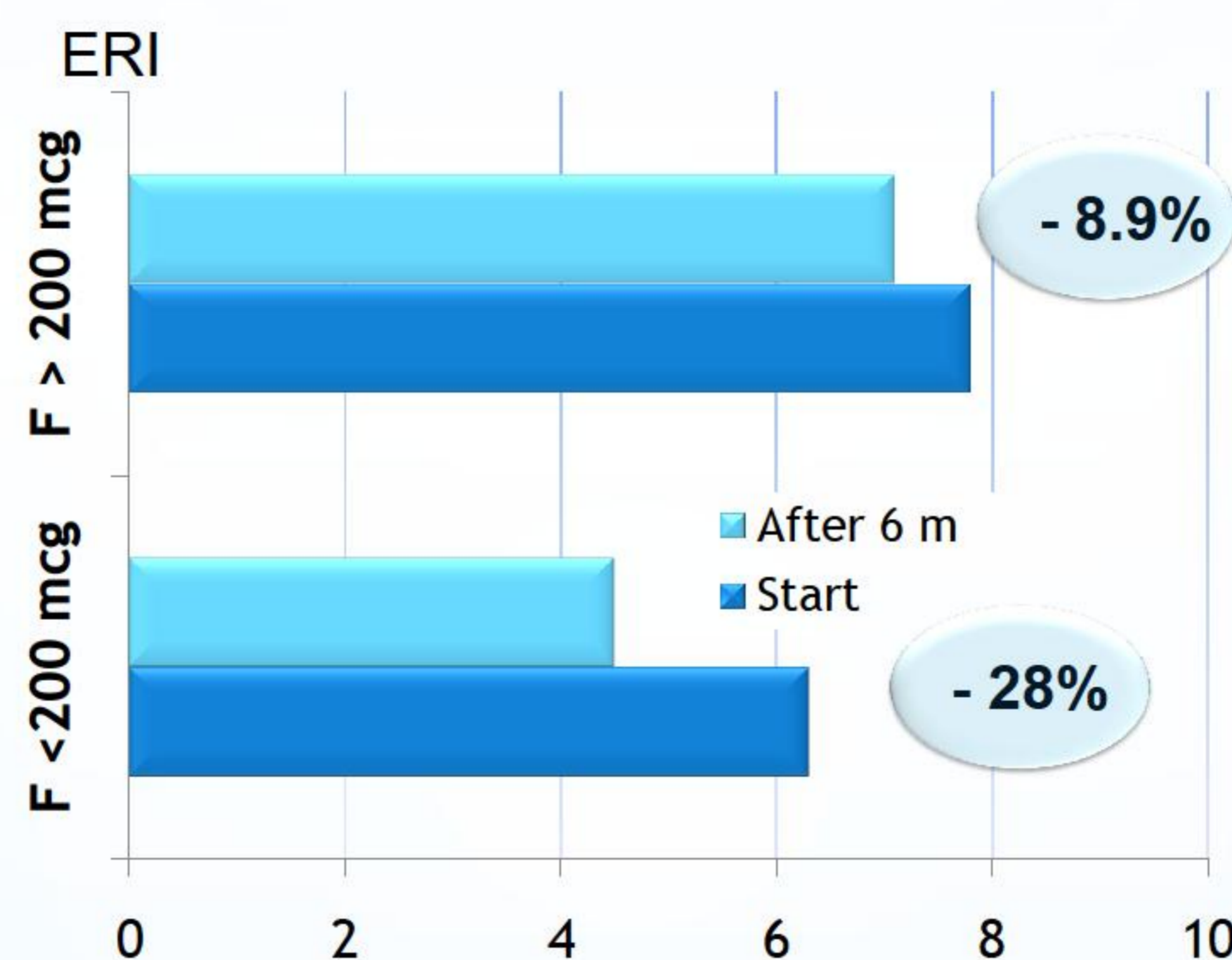
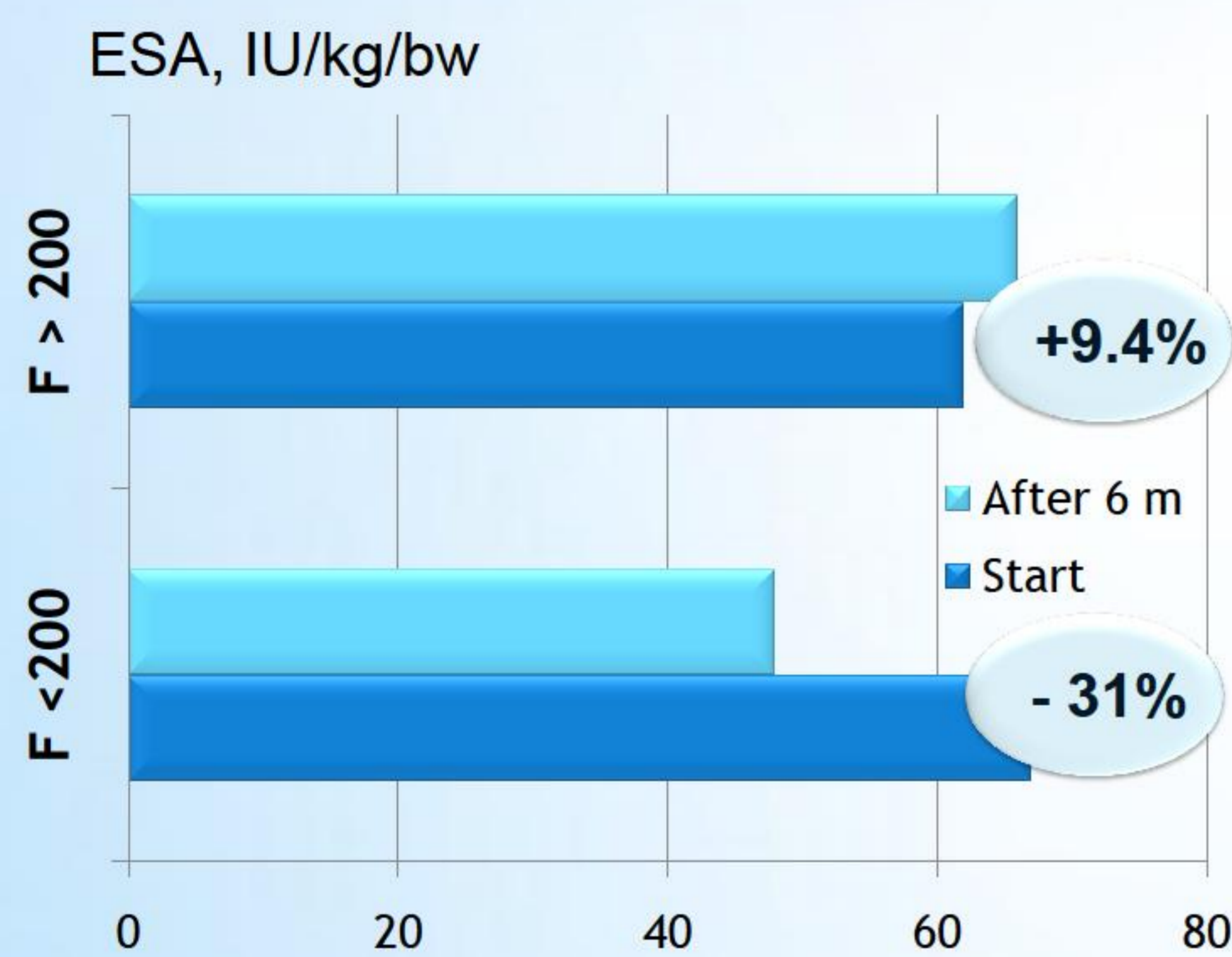
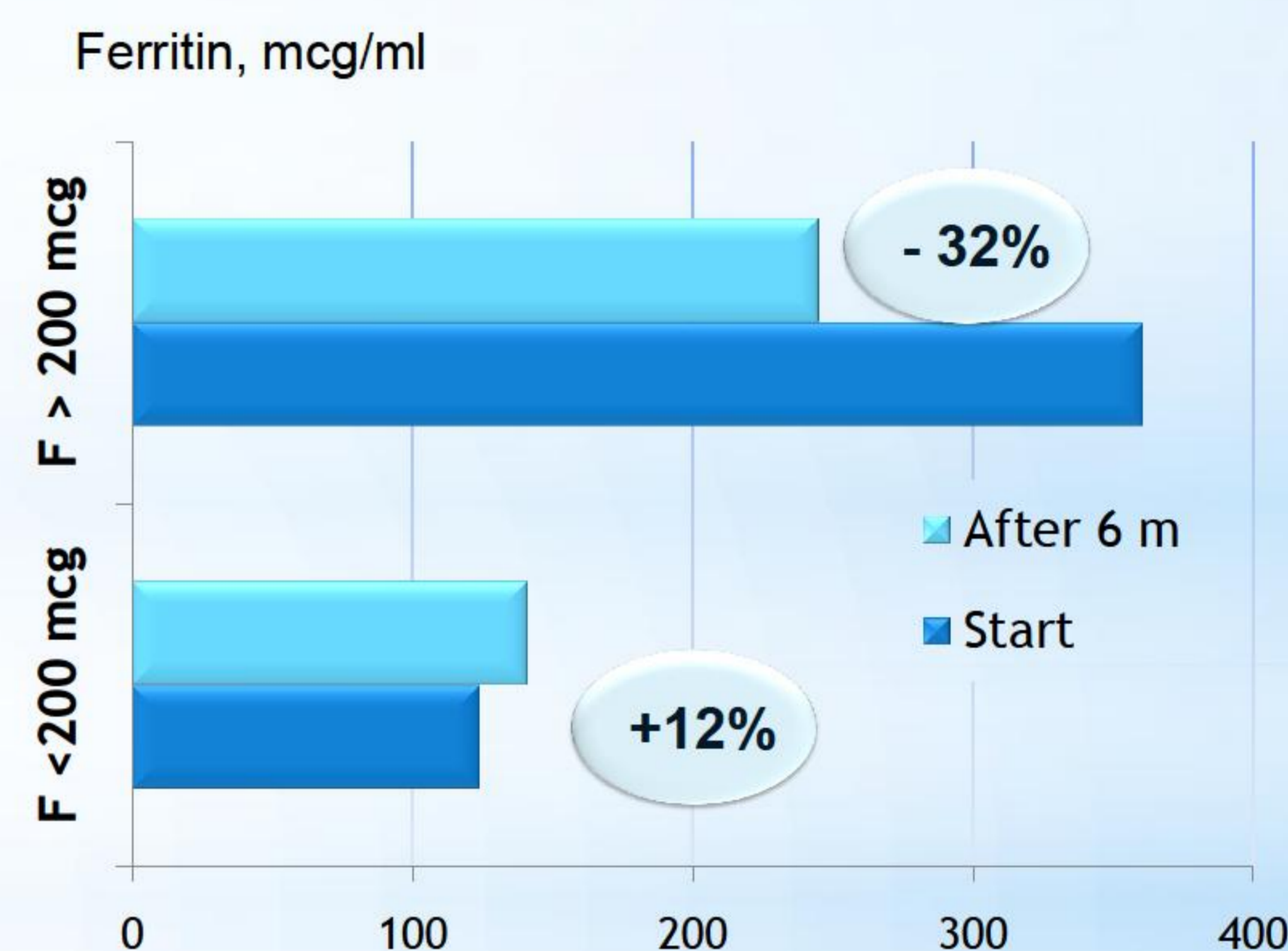


## RESULTS:

Table 1. Hemoglobin, iron indices, ESA dose and ERI during 6-month therapy with Liposomal iron

	start	2 m	4 m	6 m	p
Hemoglobin, g/dL	10.2±0.8	10.3±1.0	10.4±1.1	10.3±1.1	0.897
Ferritin, ucg/ml	213±151	227±173	205±129	169±105	0.236
Tsat, %	26.8±9.1	25.7±6.1	27.4±7.8	24.4±7.3	0.286
CRP, mg/dL	6.6±8.4	10.6±15.2	9.3±13.1	10.4±19.9	0.390
Albumin g/L	38.6±3.8	37.9±3.3	39.4±4	39.5±3.1	0.337
iPTH pg/L	233±161	177±97	167±105	167±114	0.084
ESA dose, IU/kg/w	63±33	53±40	51±43	57±47	0.567
ERI	3.4±7.0	7.9±6.4	7.5±4.3	8.7±6.6	0.115

Figure 1. Pre- and post-treatment values of serum Ferritin, Tsat, ESA dose and ERI according to initial level of S-ferritin (<200 mcg and >200 mcg)



## GSRS at the start/end of the therapy

There was no significant difference in **overall GSRS** between start and the end of the study. Still, after six months of therapy patients experienced more frequent mild dyspeptic symptom and less frequent constipation with use of liposomal iron.



**CONCLUSION:** Liposomal iron proved to be an effective and safe maintenance therapy during the period of 6 months thus avoiding the use of IV iron. It keeps hemoglobin level stable with no significant changes in ESA dose and ERI. More stable values for S-ferritin and Tsat were observed in patients with initial S-ferritin <200 mcg than in patients with serum ferritin >200 mcg. Still, we need more patients and longer follow-up period with to find the proper role and dose of liposomal iron in CKD patients.