

Effects of sertraline on C-reactive protein in hemodialysis patients with depression

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OBJECTIVES

Depression is the most prevalent psychological problem among HD patients. Inflammatory factors have been reported to play an important role in the pathogenesis of depression. Sertraline, as an SSRI antidepressant, decrease serum level of inflammatory factors in patients with depression. This study was designed to assess the effect of sertraline on serum concentration of hs-CRP, in ESRD patients with depression.

METHODS

In this clinical trial , 123 hemodialysis patient with hs-crp >5 were evaluated for depression by Beck Depression Inventory(BDI-II).BDI-II ,is a 21question ,multiple -choice self -report inventory, one of the most widely used psychometric tests for measuring the severity of depression. Finally 43 depressed HD patients with BDI-II scale score >14,and hs-CRP>5 allocated to receive sertraline (50 mg/day), After 4 weeks, in patients who did not respond to treatment ,sertraline dose was increased up to 100 mg/d. Patient's depression was assessed by BDI-II scale score. CRP levels were measured at baseline and after 4 and 8 and 12 weeks of treatment .BDI-II score evaluated before and after 12 weeks of treatment with sertraline.

BDI-II SCORE

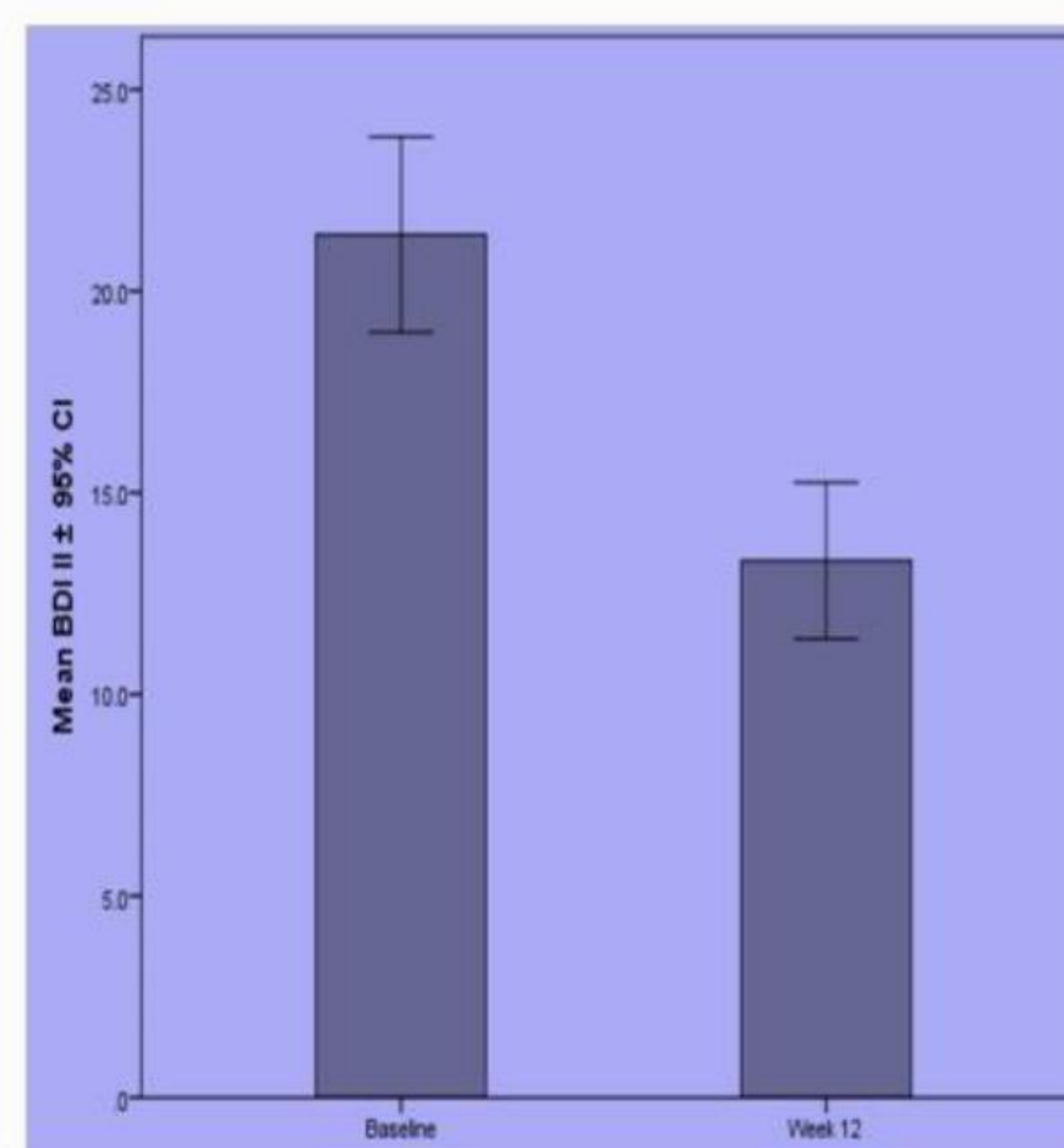
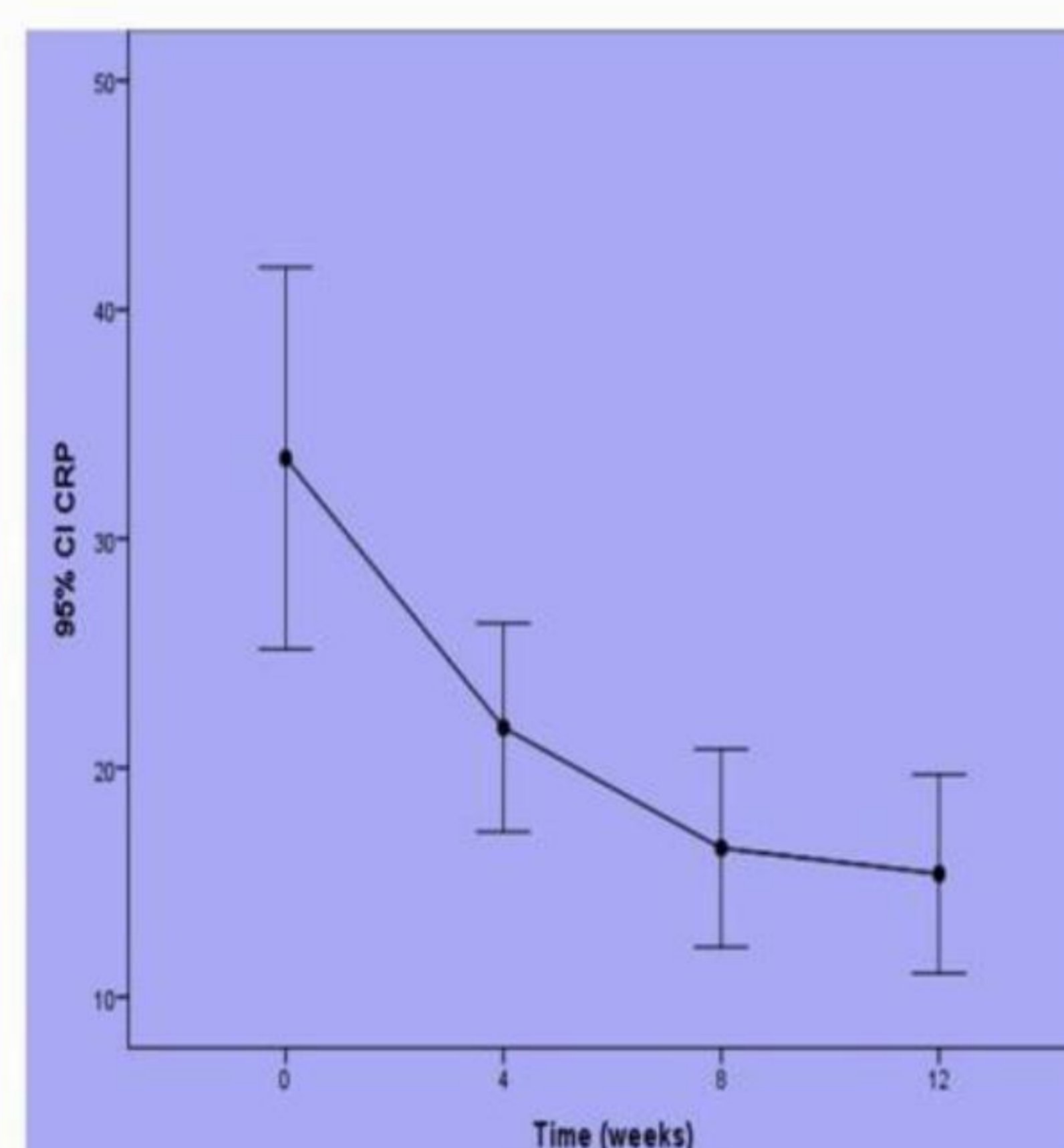


Fig1.Sertraline significantly improved depression in HD patients.

BDI-II scores significantly changes from the baseline(p=0.001)

Fig2.serum level of hsCRP significantly decreased (p=0.001)



hsCRP

RESULTS

Forty- three patients were selected ,but 35 patients complete study .Thirty five patients(21Femal),Age Mean 60.8 + 13.8(range27-79) and mean duration of dialysis 5.76 + 4.3 were evaluated. Sertraline significantly improved depression symptoms in HD patients. At the end of the study, BDI-II scores significantly changes from baseline (Pvalue=0.001)(95%CI=20.1 to 13.31) and it was also significant for decreasing CRP level (p<0.001)(95%CI=33.5 to 15.4) .

CONCLUSIONS

Sertraline significantly decrease CRP level as an inflammatory marker and could be a promising strategy to reduce the systemic inflammation and to treat depression in HD patients

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