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Posttraumatic stress disorder (PTSD) has been associated with increased inflammation (Passos et al., 2015), albeit with some controversy. Another key feature of PTSD is compromised function in wide-ranging cognitive domains (Scott et al., 2015). Increased peripheral inflammation can contribute to cognitive dysfunction, although this relationship has not been studied in patients with PTSD. Here, we examined blood inflammatory markers in adult patients with PTSD compared to healthy controls taking account of potentially confounding effects of childhood maltreatment and comorbid major depressive disorder (MDD), and explored the association between inflammation and cognition. We enrolled 40 women with PTSD, most of whom developed the disorder after interpersonal violence during adulthood, and 65 healthy control women. Diagnoses were made based on DSM-IV. History of childhood maltreatment was assessed using the Childhood Trauma Questionnaire (CTQ; Bernstein et al., 2003). Cognitive function was assessed using the Repeatable Battery for the Assessment of Neuropsychological Status (RBANS; Matsui et al., 2010; Randolph et al., 1998). Blood samples were collected for the measurement of 5 inflammatory markers including interleukin-6 (IL-6), soluble IL-6 receptor, interleukin-1β, high-sensitivity tumor necrosis factor-α, and high-sensitivity C-reactive protein. Compared to controls, patients with PTSD showed significantly higher IL-6 levels ($p=0.009$) and lower scores on all

RBANS domains (all $p<0.01$). In patients, IL-6 levels were not significantly associated with the presence/absence of comorbid MDD or CTQ scores. IL-6 levels in patients were significantly negatively correlated with RBANS visuospatial construction ($p=0.046$), language ($p=0.008$), attention ($p=0.036$) and total score ($p=0.008$). These results suggest that elevated IL-6 is associated with PTSD and that the lower cognitive function in PTSD may be due at least partly to increased inflammation.