frequently seen anomaly. When divided by gender, there were no significant differences among males, whereas 30% of SC females had at least one abnormality compared with 6% of BP+SA and 4% of CTL ($p = 0.025$). Males were more structurally abnormal in all groups. SA were similar to the BP, supporting the distinction from DSM-III-R SC criteria. Selection bias and other methodological problems will be discussed. Advantages of qualitative ratings over measurements and examples of abnormalities in the four areas will be shown.

## 43 REGIONAL ANALYSIS OF GRAY MATTER VOLUMES IN SCHIZOPHRENIA: AN MRI STUDY

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Ventricular enlargement and diffuse cortical sulcal enlargement have been reported in numerous computed tomography (CT) studies of schizophrenic subjects. It is not yet clear whether in the reduced tissue found in schizophrenia gray or white matter is predominantly affected or whether differences in specific brain regions underlie these diffuse findings. Twenty-two male, right-handed, veteran inpatients meeting DSM-III-R criteria for schizophrenia and 20 male controls, aged 20–45 years underwent a cardiac-gated, spin-echo axial MRI scan (effective TR = 2000–3000 msec; TE = 20 msec, 80 msec). Eight 5 mm thick sections per subject have been segmented into fluid, gray, and white matter compartments and summed to provide whole brain estimates of fluid, gray matter, and white matter. Even over this restricted age range, gray matter volume was negatively correlated with age. Schizophrenics had significantly less gray matter on whole brain measures. The question of regional specificity of gray matter reduction in schizophrenia will be addressed by examining defined anatomic regions of interest (e.g., temporal lobe, prefrontal cortex, etc.).

## 44 LIMBIC LOBE MEASUREMENTS BY MRI IN DEPRESSIVES AND MEDICAL CONTROLS

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Limbic pathology has been proposed in various psychiatric disorders, but few studies have quantified changes in the morphology of limbic structures. Because the temporal lobes are integral to limbic function, we compared the width of the temporal lobes as seen on MRI brain scans of patients with Major Depressive Disorder (n = 20) versus age- and gender-matched "medical" controls who had clinically "normal" MRI scans on record. MRI measurements were made by a neuroradiologist blind to the diagnosis. Maximal widths of both temporal lobes, medial to the temporal horns and perpendicular to their long axes, composed predominantly of hippocampal and other limbic system structures (parahippocampal, dentate gyrus, subiculum fornix, and other structures), were manually measured on axial T1- and/or T2-weighted images at the anterior margin of the mid-brain. Unpaired two-tailed *t*-tests were used to compare the two groups. There were no significant differences in the left and right limbic lobe measurements between the two groups. The problem of using "medical" controls for comparison will be discussed.