Abdominal obesity has been associated with altered pathophysiological processes resulting in adverse outcomes e.g. CVD. Since depression may share some of these processes, we hypothesized that abdominal obesity, independent of overall obesity, is associated with depressive symptoms. The 5-year longitudinal association between depressive symptoms and obesity measures was examined among 2654 Health ABC participants (70-79 years, 51% women). Overall obesity measures included body mass index and % total body fat (DXA), central adiposity measures included waist circumference, sagittal diameter, and abdominal visceral fat area (by CT-scan). Depressive symptoms were defined as a CES-D 10-item score ≥10. During the 5-year follow-up, incident depressive symptoms emerged among 23% of the 2528 initially non-depressed. After adjustment for sociodemographics, diseases and overall obesity, sagittal diameter (HR per SD increase=1.19, 95%CI=1.01-1.40) and abdominal visceral fat (HR=1.14, 95%CI=1.01-1.27) predicted incident depressive symptoms. In turn, baseline depressive symptoms were associated with larger 5-year increase in waist circumference ($\beta$=.043, $p=.03$), sagittal diameter ($\beta$=.062, $p=.006$) and abdominal fat area ($\beta$=.082, $p<.001$). These results suggest that, independent of overall obesity, abdominal visceral obesity and depressive symptoms are longitudinally associated in a bi-directional way.

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