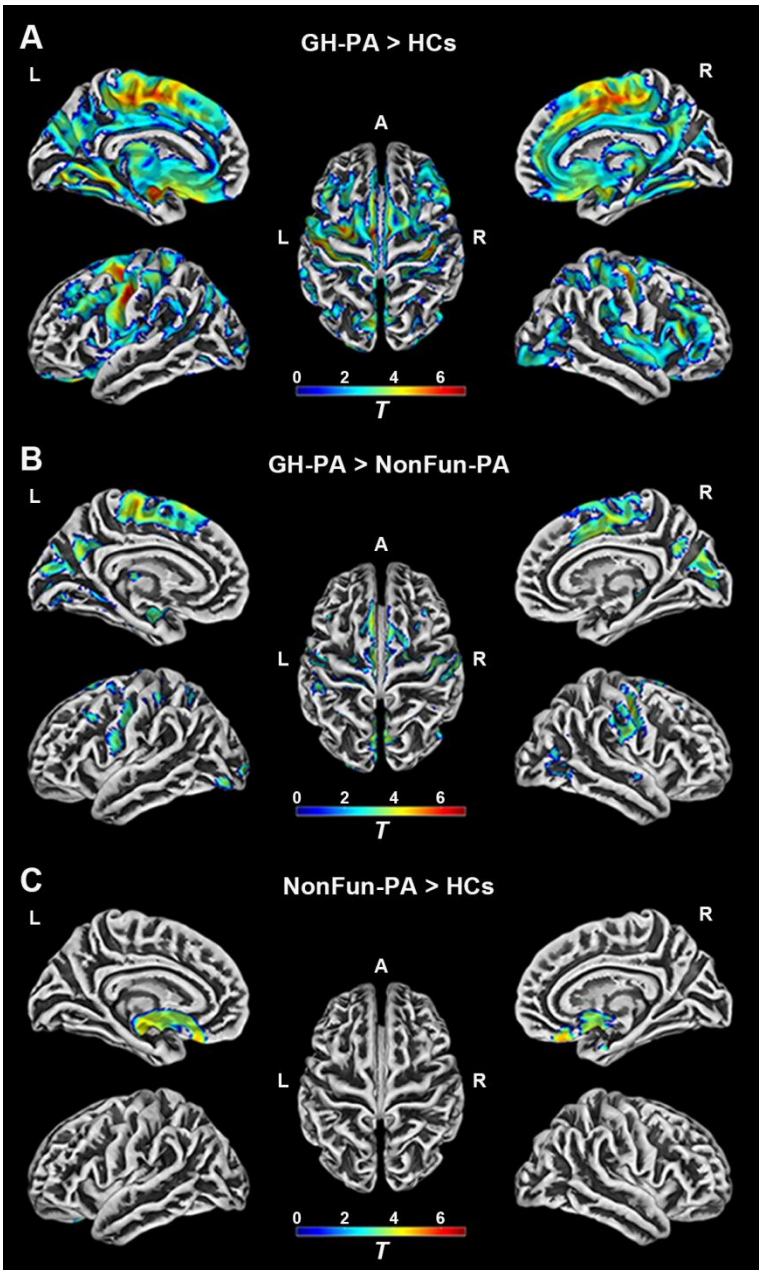
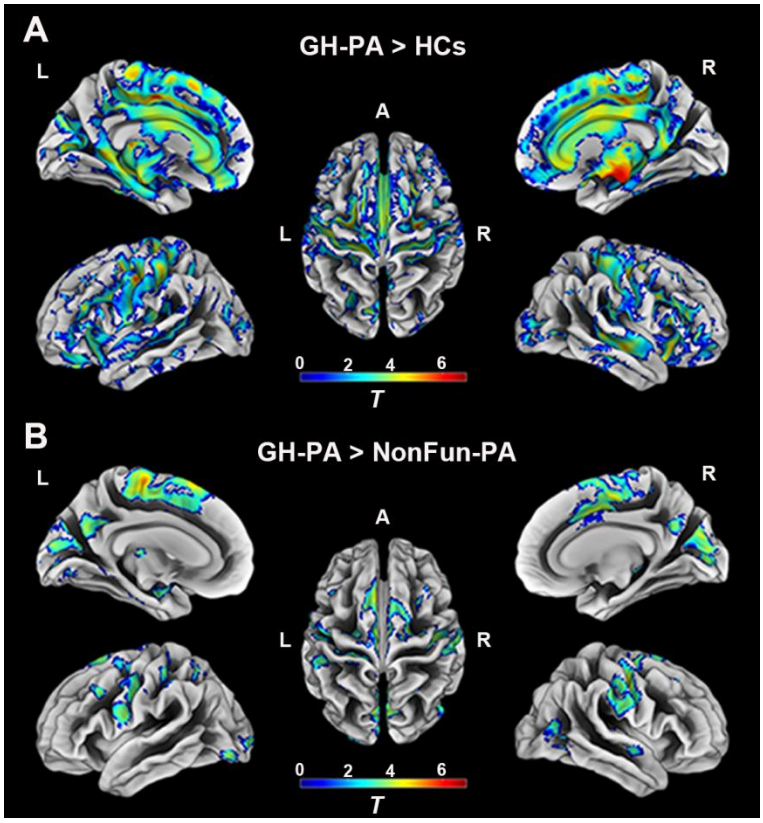
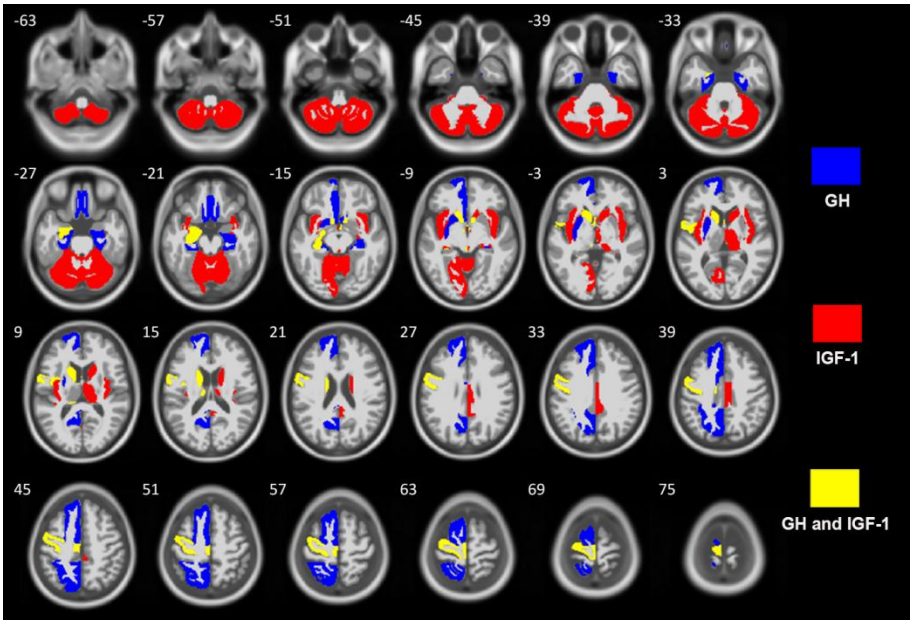
SUPPLEMENTARY FIGURES



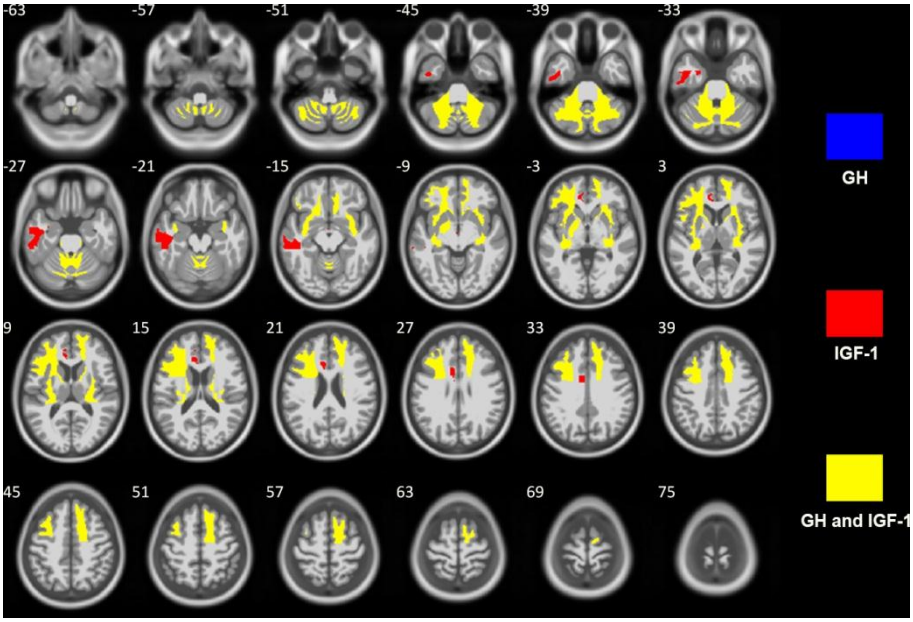
Supplementary Figure 1. GM regional differences. VBM analysis showing the extensive regions of GMV increases in GH-PA compared to HCs (**A**) and NonFun-PA (**B**) (FDR corrected, $p < 0.05$, cluster size>333). VBM analysis showing GMV alteration in NonFun-PA compared to HCs (**C**) (FDR corrected, $p < 0.05$, cluster size>333).



Supplementary Figure 2. WM regional differences. VBM analysis showing the extensive regions of WMV increases in GH-PA compared to HCs (**A**) and NonFun-PA (**B**) (FDR corrected, $p < 0.05$, cluster size>333).



Supplementary Figure 3. Correlation analysis between GH/IGF-1 and gray matter volume (GMV) of brain regions (Hammers' atlas) in GH-PA patients. Blue represents brain regions volumes that are positively correlated with serum GH levels; red represents brain region volumes that are positively correlateed with serum IGF-1 levels; yellow represents brain region volumes that are simultaneously positively correlated with serum GH levels and IGF-1 levels (Supplementary Table 2). Significance was determined by $p < 0.05$.



Supplementary Figure 4. Correlation analysis between GH/IGF-1 and white matter volume (WMV) of brain regions (Hammers' atlas) in GH-PA patients. Blue represents brain region volumes that are positively correlated with serum GH levels; red represents brain regions volumes that are positively correlated with serum IGF-1 levels; yellow represents brain region volumes that are simultaneously positively correlated with serum GH levels and IGF-1 levels (Supplementary Table 3). Significance was determined by $p < 0.05$.