**Supplementary 5: Correlation of abnormal acid exposure (when esophageal pH is <4 greater or equal to 4.2% of the time during the total study) with severity of weak contractions, severity of failed contractions, and mean LES pressure among CCv3.0 IEM patients not on PPI medication during pH impedance study (n=17), 2011-2019**

|  |  |
| --- | --- |
|  | **Patients not on PPI medication during pH impedance study** |
| **Correlation between abnormal pH exposure with percent of weak contractions** | r= 0.0175  p= 0.9469 |
| **Correlation between abnormal pH exposure with percent of failed contractions** | r= 0.2584  p= 0.3166 |
| **Correlation between abnormal pH exposure with mean LES pressure** | r= -0.2991  p= 0.2435 |

IEM, ineffective esophageal motility; CCv4.0, Chicago Classification v4.0; CCv3.0, Chicago Classification v3.0; PPI, proton pump inhibitor; LES, lower esophageal sphincter