**Table S2. Chicago Classification v4.0 (CCv4.0) diagnoses among FLIP Panometry findings.** The FLIP Panometry classification of esophagogastric junction (EGJ) opening is displayed in **A** and the contractile response patterns are displayed in **B.** HRM – high resolution manometry. EGJOO – esophagogastric junction outflow obstruction. DES – distal esophageal spasm. IEM – ineffective esophageal motility.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **A** | **FLIP Panometry EGJ opening classification** | | | |
|  | **Normal EGJ opening** | **Borderline normal EGJ opening** | **Borderline reduced EGJ opening** | **Reduced EGJ opening** |
| **n (%)** | 187 (35%) | 57 (11) | 54 (10) | 241 (45%) |
|  | **n (%)** | **n (%)** | **n (%)** | **n (%)** |
| **HRM - CCv4.0**  **Type I achalasia**  **Type II achalasia**  **Type III achalasia**  **EGJOO**  **Hypercontractile**  **DES**  **Absent contractility**  **IEM**  **Normal motility** | 1 (1)  0  0  0  1 (1)  4 (2)  7 (4)  21 (11)  153 (82) | 0  3 (5)  5 (9)  0  4 (7)  2 (4)  3 (5)  10 (18)  30 (53) | 11 (20)  13 (24)  3 (6)  0  2 (4)  2 (4)  0  7 (13)  16 (30) | 43 (18)  113 (47)  32 (13)  19 (8)  6 (3)  4 (2)  0  6 (3)  18 (8) |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **B** | **FLIP Panometry Contractile Response Pattern** | | | | |
|  | **Normal** | **Borderline** | **Impaired/ disordered** | **Absent** | **Spastic-reactive** |
| **n (%)** | 94 (17) | 97 (18) | 119 (22) | 172 (32) | 57 (11) |
|  | **n (%)** | **n (%)** | **n (%)** | **n (%)** | **n (%)** |
| **HRM - CCv4.0**  **Type I achalasia**  **Type II achalasia**  **Type III achalasia**  **EGJOO**  **Hypercontractile**  **DES**  **Absent contractility**  **IEM**  **Normal motility** | 0  0  0  0  2 (2)  3 (3)  0  6 (6)  83 (88) | 1 (1)  1 (1)  3 (3)  1 (1)  3 (3)  2 (2)  2 (2)  11 (11)  73 (75) | 5 (4)  37 (31)  21 (18)  6 (5)  1 (1)  3 (3)  3 (3)  12 (10)  31 (26) | 48 (28)  79 (46)  5 (3)  10 (6)  1 (1)  1 (1)  5 (3)  10 (6)  13 (8) | 1 (2)  12 (21)  11 (19)  2 (4)  6 (11)  3 (5)  0  5 (9)  17 (30) |