**SUPPLEMENTARY TABLES AND FIGURES**

Supplementary Table 1: The London Score and its calculation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Score** | **0** | **1** | **2** | **3** |
| **Mural thickness1** | 1–3mm | >3–5mm | >5–7mm | >7mm |
| **Mural T2 signal2** | Equivalent to normal bowel  wall | Minor increase in signal-bowel  wall appears dark grey on fat  saturated images | Moderate increase in  signal-bowel wall appears light  grey on fat saturated images | Marked increase in  signal-bowel wall contains  areas of white high signal  approaching that of luminal  content |

1Measured using electronic calipers

2Compared to normal small bowel

London score = 1.79 + (1.34 x mural thickness score) + (0.94 x mural T2 signal score)

Supplementary Table 2: Typical mMRI sequence parameters

|  |  |
| --- | --- |
| **MRI parameter** | **Value** |
| Sequence name | TruFISP (Siemens), BTFE (Philips), FIESTA (General Electric) |
| Plane | Coronal |
| Field of view | Variable, to encompass entire small bowel |
| No of slices | 20 |
| Stacks | Variable, to encompass entire small bowel |
| Repetition time | 3.85 ms |
| Echo time | 1.91 ms |
| Matrix | 256 x 184 |
| Slice thickness | 10 mm |
| Gap between isocentres | 10 mm |
| Averages | 1 |
| Flip angle | 61 |
| Temporal resolution | 1.1 images per second |
| Scan time per position | 22 seconds |

Supplementary Table 3: 2x2 contingency table of stable or improved mMRI and CRP normalisation for response or remission (RoR) at 1 year defined using the sMARIA rather than the London score to define RoR.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **mMRI** | | | | |
|  | Response | No response | Total | Sensitivity (%)  (95% CI) | Specificity (%)  (95% CI) |
| RoR at 1 year | 26 | 6 | 32 | 81.3  (63.6 - 92.8) | 37.0  (24.3 - 51.3) |
| No RoR at 1 year | 34 | 20 | 54 |
| **Total** | 60 | 26 | 86 |
|  | **CRP** | | | | |
| RoR at 1 year | 15 | 17 | 32 | 46.9  (29.1 – 65.3) | 68.5  (54.4 - 80.5) |
| No RoR at 1 year | 17 | 37 | 54 |
| **Total** | 32 | 54 | 86 |
| **McNemar’s  test p-value** |  | | | 0.007 | 0.001 |

Supplementary Figure 1: Receiver operating characteristic and area under the curve of percentage change in mMRI score and change in CRP for response or remission (RoR) at 1 year defined using the sMARIA rather than the London score to define RoR

Supplementary Figure 2: Scatter plot of mMRI values against MRE-measured disease activity (London score)

