



Supplementary material

Caspase-cleaved keratin 18 measurements identified ongoing liver injury after bariatric surgery

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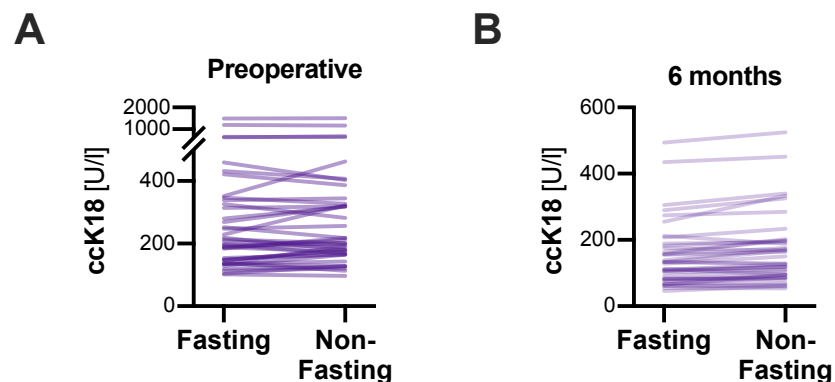
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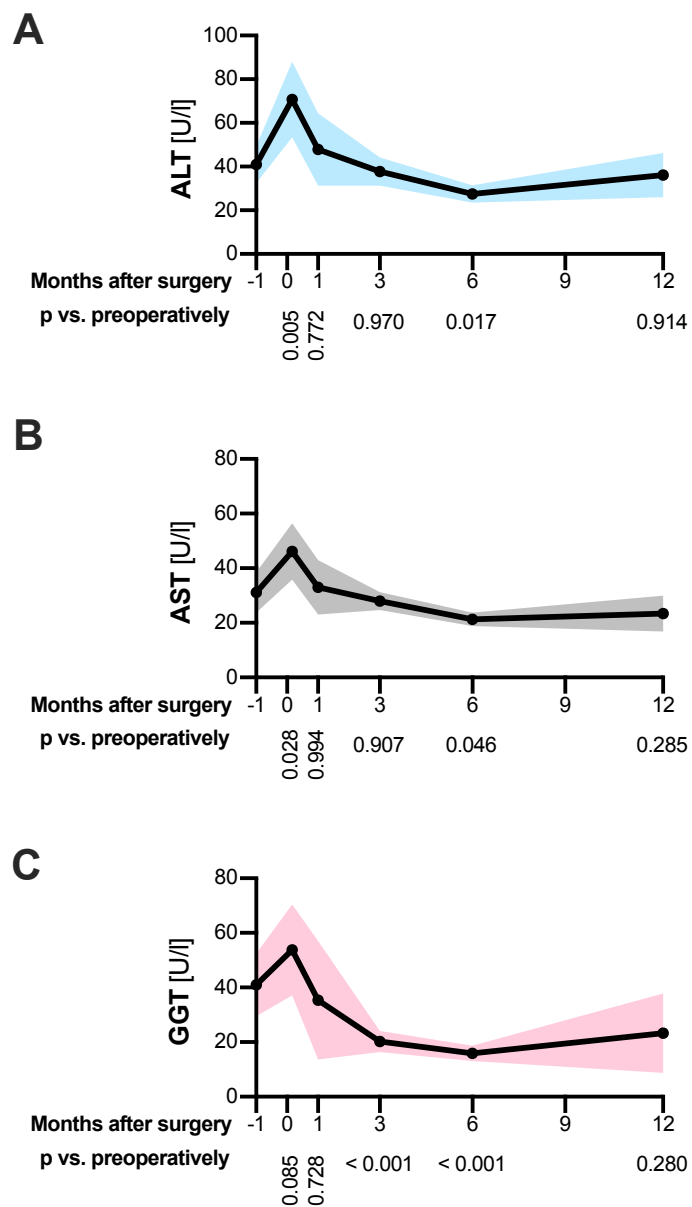
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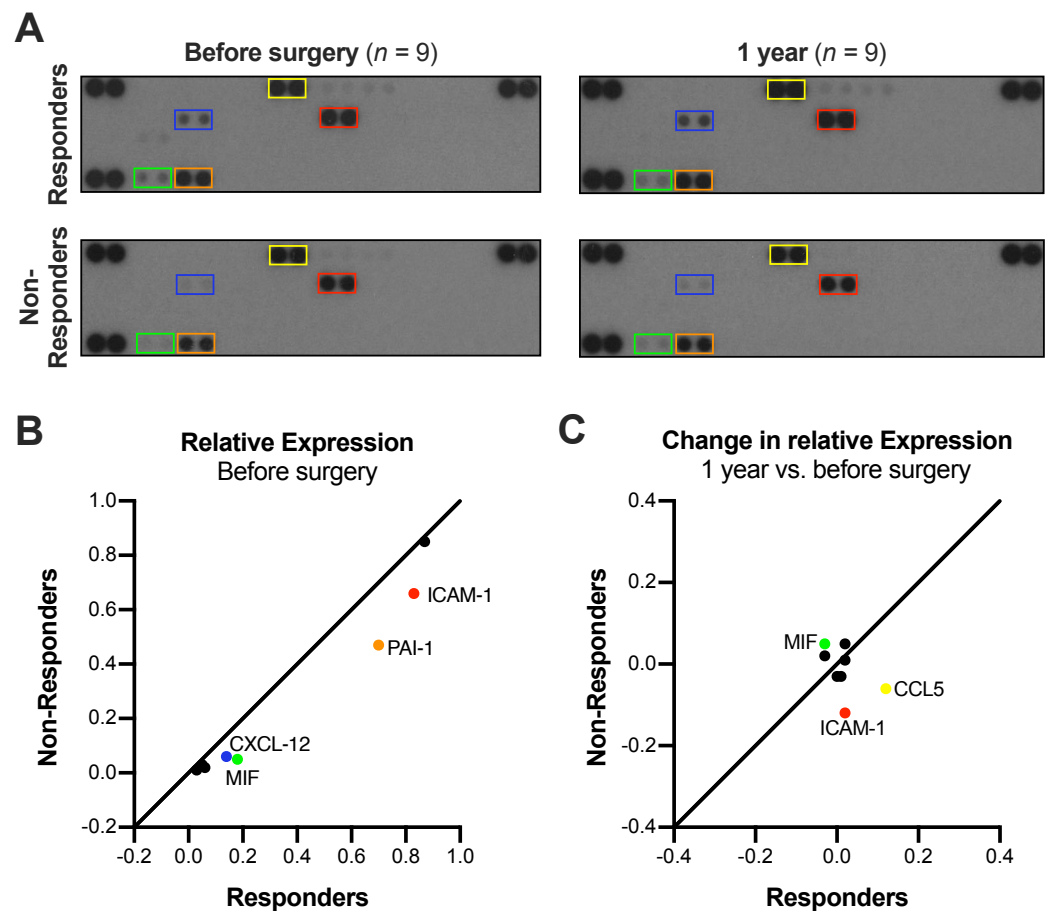
Supplementary Figure S1. Fasting is not required to obtain reliable ccK18 serum levels. Blood samples were drawn from all 39 patients (A) before and (B) six months after the surgery – once fasting, once after a standard meal. The coefficient of variation, caused by the additional blood sample, was lower than the interassay variability proposed by the manufacturer, indicating no substantial influence of the fasting state.



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Supplementary Figure S2. Natural history of parameters of liver injury following bariatric surgery. The course of **(A)** alanine-aminotransferase (ALT), **(B)** aspartate-aminotransferase (AST), and **(C)** gamma-glutamyltransferase (GGT) was distinct from that of caspase-cleaved keratin 18 (Figure 1C). All three parameters showed a transient increase subsequent to surgery. However, the levels decrease one month postoperatively. Interestingly, there is a significant decrease in ALT, AST, and GGT six months but not 12 months after surgery. Mean (line) and 95% confidence interval (colored area) are shown. A fitted mixed-effects model was applied.



Supplementary Figure S3. Cytokine expression in responders and non-responders. **(A)** High resolution scans of the original arrays. Pooled serum samples of 9 patients per group were subjected to cytokine arrays before and one year after surgery. **(B)** Preoperatively, the expression of CXCL12, plasminogen activator inhibitor 1 (PAI-1), and macrophage migration inhibitory factor (MIF) was lower in non-responders. **(C)** One year after gastric bypass, the expression of intercellular adhesion molecule 1 (ICAM-1) decreased in non-responders, while remaining unchanged in responders. CCL5 is more abundant in responders one year postoperatively but less expressed in non-responders. Correspondingly colored boxes in **(A)** label the protein's positions on the arrays.