

Effects of surgery on peripheral N-terminal propeptide of type III procollagen in patients with Crohn's disease

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Aim: this study investigates the effects of surgery on collagen turnover in patients affected by Crohn's disease (CD).

Methods: fifteen patients affected by active CD, assessed according to the Crohn's disease activity index, and confirmed by histology, with different pharmacological treatments, were enrolled in the study. N-Terminal propeptide of type III collagen was assessed on peripheral blood before and 6 months after surgery, as an index of collagen turnover. A control group of 15 healthy age- and sex-matched subjects was also studied.

Results: in CD patients peripheral N-terminal propeptide of type III collagen serum levels were significantly higher than in controls before surgery (5.0 ± 1.8 vs 2.7 ± 0.7 $\mu\text{g/l}$, respectively; $p=0.0001$). Six months after these values were significantly reduced (from 5.0 ± 1.8 to 3.1 ± 0.8 $\mu\text{g/l}$; $p=0.003$). Independently on the pretreatment regimen and the duration of the disease, an improvement in the patients' symptoms was observed.

Conclusions: the surgical resection of the affected intestinal segment in CD patients seems to be able to break down the collagen synthesis processes. Peripheral N-terminal propeptide of type III collagen could be seen as an additive marker to clinical and endoscopic observations after surgery.

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