**Supplementary Table 1. Factors influencing post-operative histologic recurrence assessed with univariate and multivariate analysis**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Factors** | | |  | **Univariate** | | | **Multivariate** | | |
|  | |  | OR | 95%CI | *P* | OR | | 95%CI | *P* |
| **Histologic recurrence** | |  |  |  |  |  |  | |  |
| Age (>35) | |  | 1.31 | 0.41-4.16 | 0.79 |  |  | |  |
| CRP (>3 mg/L) |  | | 2.07 | 0.43-11.7 | 0.33 |  |  | |  |
| Disease duration (>6 year) | |  | 0.45 | 0.10-1.84 | 0.23 |  |  | |  |
| Female | |  | 1.31 | 0.40-4.28 | 0.78 |  |  | |  |
| Penetrating type | |  | 0.87 | 0.26-2.83 | 1.00 | 0.95 | 0.65-1.39 | | 0.80 |
| Perianal disease | |  | 1.43 | 0.40-5.57 | 0.58 | 1.31 | 0.36-4.80 | | 0.68 |
| Current smoker | |  | 0.78 | 0.14-4.45 | 0.72 | 0.64 | 0.14-2.91 | | 0.56 |
| Previous surgery | |  | 0.47 | 0.12-1.62 | 0.27 |  |  | |  |
| Anti-TNF naive | |  | 2.67 | 0.68-13.0 | 0.15 |  |  | |  |
| Postoperative medication | |  |  |  |  |  |  | |  |
| Steroids\* | |  | 2.01 | 0.32-22.2 | 0.69 |  |  | |  |
| Immunomodulator | |  | 2.41 | 0.75-8.07 | 0.12 |  |  | |  |
| Anti-TNF-α agents | |  | 0.57 | 0.14-2.27 | 0.37 |  |  | |  |
| Vedolizumab | |  | 2.98 | 0.52-31.6 | 0.28 |  |  | |  |
| Vitamin D >30 ng/ml | |  | 0.28 | 0.07-1.00 | 0.04 | 0.26 | 0.08-0.84 | | 0.02 |
| Vitamin D supplement | |  | 0.80 | 0.25-2.58 | 0.79 |  |  | |  |
| Vitamin B12 >240 pg/ml | |  | 0.49 | 0.08-6.57 | 1.00 |  |  | |  |
| Zinc >0.68 μg/ml | |  | 1.09 | 0.21-5.70 | 1.00 |  |  | |  |

OR; odds ratio. \*Used for steroid dependency or tapered down during postoperative course.

**Supplementary Table 2. Factors influencing post-operative clinical recurrence assessed with univariate and multivariate analysis**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Factors** | |  | **Univariate** | | | **Multivariate** | | | |
|  | |  | OR | 95%CI | *P* | OR | | 95%CI | *P* |
| **Clinical recurrence** | |  |  |  |  |  |  | |  |
| Age (>35) | |  | 2.45 | 0.91-6.83 | 0.07 | 2.11 | 0.76-5.82 | | 0.14 |
| CRP (>3 mg/L) |  | | 13.0 | 2.90-72.4 | <0.001 | 29.4 | 2.48-349 | | 0.007 |
| Disease duration (>6 year) | |  | 0.77 | 0.24-2.46 | 0.79 |  |  | |  |
| Female | |  | 3.19 | 1.16-9.30 | 0.01 | 6.69 | 0.30-146 | | 0.22 |
| Penetrating type | |  | 1.08 | 0.39-2.99 | 1.00 | 0.73 | 0.46-1.16 | | 0.18 |
| Perianal disease | |  | 1.05 | 0.36-2.97 | 1.00 | 0.54 | 0.17-1.74 | | 0.30 |
| Current smoker | |  | 1.75 | 0.49-6.41 | 0.39 | 1.66 | 0.41-6.72 | | 0.47 |
| Previous surgery | |  | 1.32 | 0.46-3.90 | 0.63 |  |  | |  |
| Anti-TNF naive | |  | 0.94 | 0.30-2.83 | 1.00 |  |  | |  |
| Postoperative medication | |  |  |  |  |  |  | |  |
| Steroids\* | |  | 2.98 | 0.79-12.6 | 0.08 | 4.31 | 0.89-20.9 | | 0.07 |
| Immunomodulator | |  | 0.27 | 0.09-0.75 | 0.007 | 0.20 | 0.06-0.62 | | 0.008 |
| Anti-TNF-α agents | |  | 0.85 | 0.28-2.51 | 0.81 |  |  | |  |
| Vedolizumab | |  | 1.04 | 0.27-3.88 | 1.00 |  |  | |  |
| Vitamin D >30 ng/ml | |  | 0.38 | 0.10-1.20 | 0.08 | 0.35 | 0.11-1.14 | | 0.08 |
| Vitamin D supplement | |  | 1.60 | 0.60-4.32 | 0.36 |  |  | |  |
| Vitamin B12 >240 pg/ml | |  | 0.72 | 0.09-5.77 | 0.69 |  |  | |  |
| Zinc >0.68 μg/ml | |  | 0.36 | 0.09-1.27 | 0.10 | 0.46 | 0.10-2.09 | | 0.31 |

OR; odds ratio. \*Used for steroid dependency or tapered down during postoperative course.

**Supplementary Table 3 Factors influencing post-operative biologic recurrence assessed with univariate and multivariate analysis**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Factors** |  | **Univariate** | | | **Multivariate** | | | |
|  |  | OR | 95%CI | *P* | OR | | 95%CI | *P* |
| **Biologic recurrence (CRP)** |  |  |  |  |  |  | |  |
| Age (>35) |  | 3.56 | 0.98-14.4 | 0.048 | 2.61 | 0.72-9.38 | | 0.14 |
| Disease duration (>6 year) |  | 1.00 | 0.22-4.72 | 1.00 |  |  | |  |
| Female |  | 3.54 | 0.94-15.4 | 0.047 | 4.32 | 0.99-18.7 | | 0.05 |
| Penetrating type |  | 1.27 | 0.36-4.55 | 0.77 | 0.97 | 0.62-1.50 | | 0.88 |
| Perianal disease |  | 1.59 | 0.46-5.62 | 0.57 | 0.64 | 0.16-2.55 | | 0.52 |
| Current smoker |  | 3.44 | 0.44-41.7 | 0.20 | 1.87 | 0.24-14.4 | | 0.54 |
| Previous surgery |  | 4.21 | 0.93-27.0 | 0.06 | 4.09 | 0.99-16.9 | | 0.05 |
| Anti-TNF naive |  | 2.14 | 0.50-9.43 | 0.33 |  |  | |  |
| Postoperative medication |  |  |  |  |  |  | |  |
| Steroids\* |  | 0.89 | 0.16-4.23 | 1.00 |  |  | |  |
| Immunomodulator |  | 0.55 | 0.15-1.91 | 0.40 |  |  | |  |
| Anti-TNF-α agents |  | 1.10 | 0.28-4.11 | 1.00 |  |  | |  |
| Vedolizumab |  | 0.90 | 0.12-5.32 | 1.00 |  |  | |  |
| Vitamin D >30 ng/ml |  | 0.52 | 0.13-1.90 | 0.38 | 0.63 | 0.16-2.46 | | 0.51 |
| Vitamin D supplement |  | 0.70 | 0.19-2.44 | 0.58 |  |  | |  |
| Vitamin B12 >240 pg/ml |  | 0.60 | 0.04-9.04 | 0.63 |  |  | |  |
| Zinc >0.68 μg/ml |  | 0.46 | 0.07-2.43 | 0.46 |  |  | |  |

OR; odds ratio. \*Used for steroid dependency or tapered down during postoperative course.