Exploratory Study of Serum Lactoferrin and Anti-Lactoferrin Antibody Concentrations in Patients with Endometriosis.

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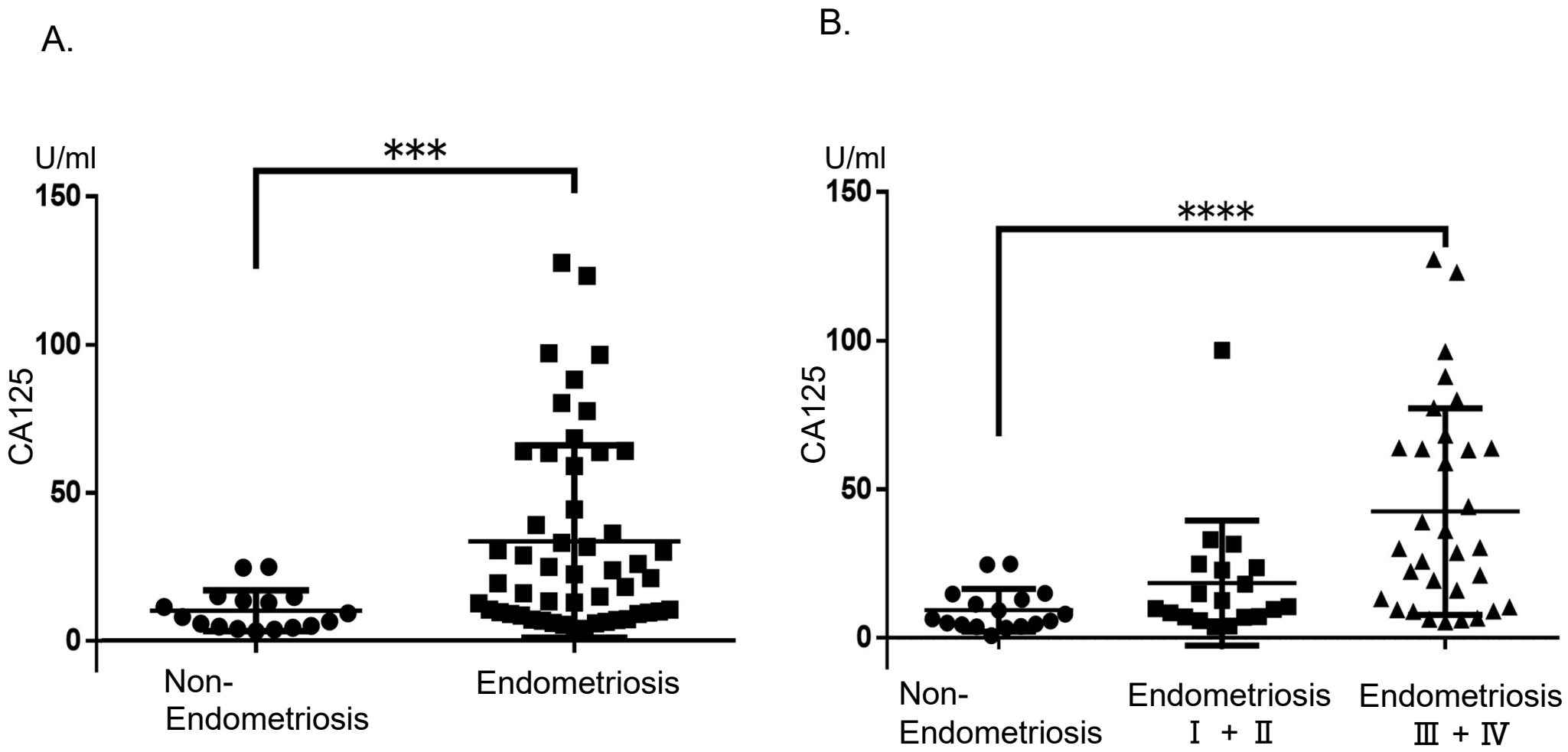
Supplementary Material

Supplementary Figure S1



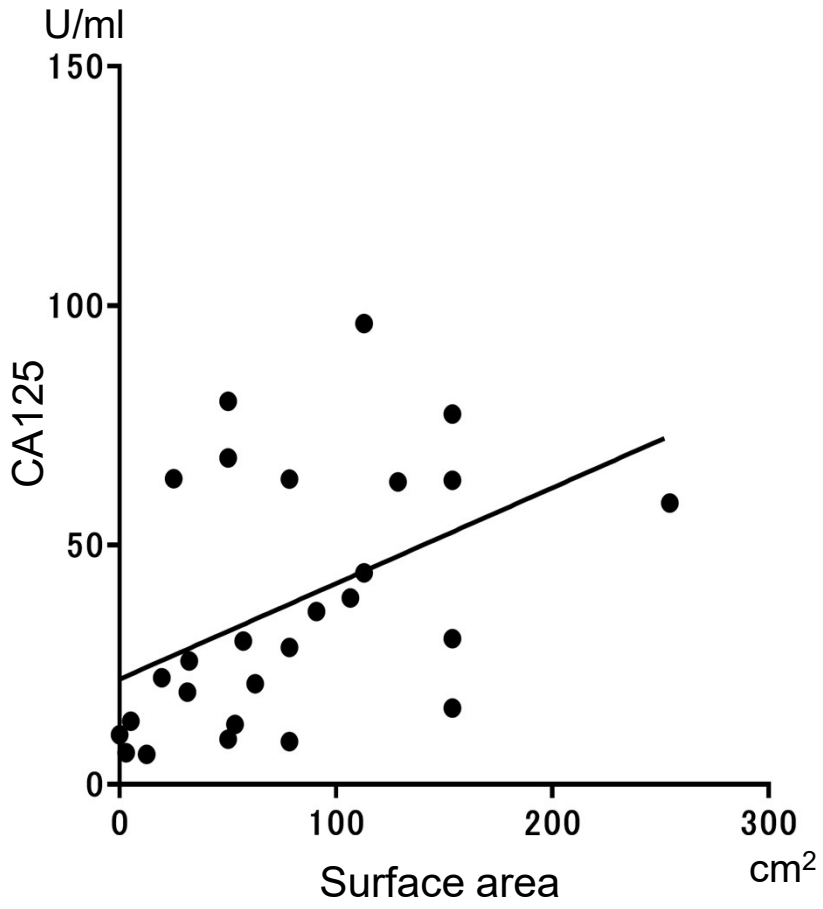
Supplementary Figure S1. The serum levels of CA125

The serum levels of CA125 in the stored samples were measured by ELISA kits (TM-CA125 ELIZA Kit, Product no. EIA5072R, DRG Instruments GmbH, Germany) following the manufacturer's instructions. The plates were read as with other ELISA assays. Then, the serum CA125 levels were compared between the endometriosis and non-endometriosis groups, and their differences were compared among the non-endometriosis, early-stages endometriosis (I + II), and advanced-stages endometriosis (III + IV) groups using the analysis of variance or Kruskal–Wallis test.

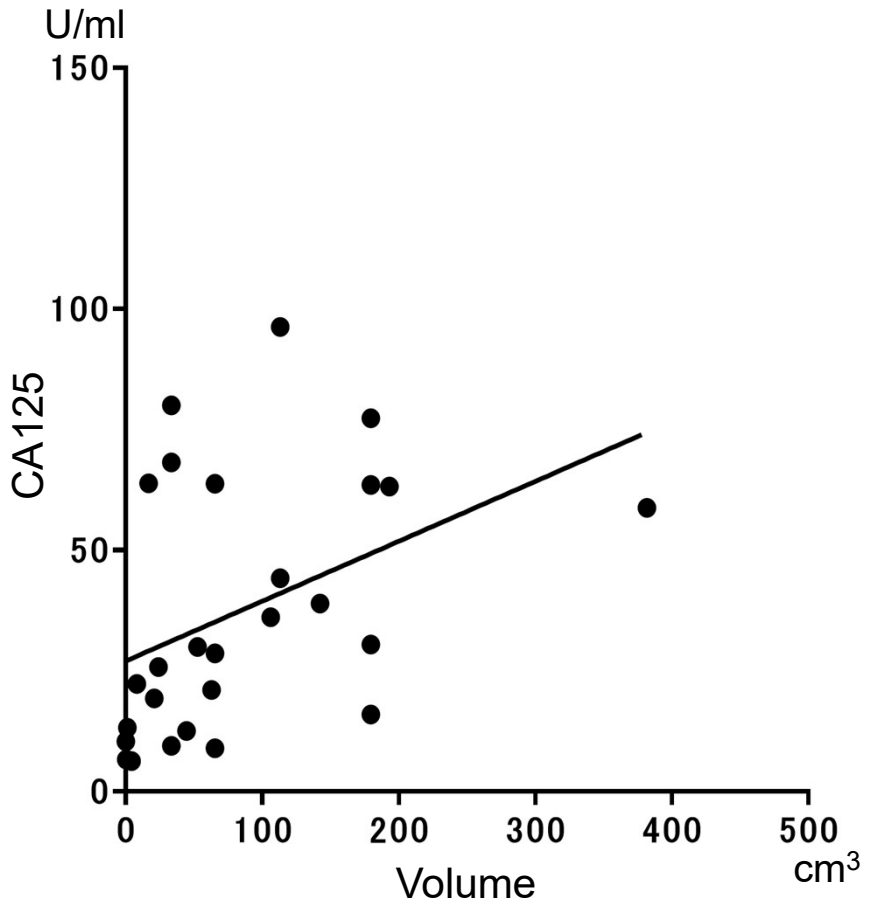
A. The serum levels of CA125 in the endometriosis and non-endometriosis groups. Horizontal bars represent medians with IQR. Differences between groups were analyzed by Mann–Whitney U-tests (***$p < 0.001$).
B. Serum CA125 levels in patients with early-stage endometriosis, advanced-stage endometriosis, or without endometriosis. Horizontal bars represent medians with IQR. Comparisons among the three groups were performed using the Kruskal-Wallis test. Differences between the two groups were analyzed by Mann–Whitney U-tests (****$p < 0.0001$).

Supplementary Figure S2

A.



B.



Supplementary Figure S2. Correlation between the serum level of CA125 and the surface area or volume of endometrioma

In all cases in whom ovarian endometrioma was found, an MRI was taken. The length of the inner side of the cyst on MRI in three directions (the radii of each are r1, r2, and r3) was measured. The surface area and volume of the endometrioma were calculated, considering it as an ellipsoid. The surface area was calculated using the report of Tee (https://www.math.auckland.ac.nz/deptdb/dept_reports/539.pdf). The volume was calculated using the formula ($4/3\pi \times r1 \times r2 \times r3$). When more than one endometrioma was found in a patient, the volume and surface area of these were added together to calculate the volume and surface area of the endometrioma in one patient. The correlations between the serum levels of CA125 and the surface area or volume of endometrioma were evaluated.

A. Correlation between the serum CA125 level and the surface area of endometrioma. There was a correlation between the serum CA125 level and the surface area of endometrioma (Pearson's correlation coefficients: 0.458, confidence interval: 0.096 to 0.714, R2 = 0.211, $p = 0.016$).
B. Correlation between the serum CA125 level and the volume of endometrioma. There was a correlation between the serum CA125 level and the volume of endometrioma (Pearson's correlation coefficients: 0.412, confidence interval: 0.038 to 0.685, R2 = 0.170, $p = 0.033$).