# 学位論文審査結果の要旨

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# (学位論文審査結果の要旨)

Clinical Implications of Pretreatment: Lymphocyte-to-Monocyte Ratio in Patients With Rectal Cancer Receiving Preoperative Chemoradiotherapy

## 【主論文審査結果の要旨】

著者らは論文において下記の内容を述べている。

# BACKGROUND:

Despite advances in local control of rectal cancer, recurrence in distant organs is still one of the main causes of mortality. Prognostic biomarkers would be valuable for the treatment of patients who have rectal cancer.

#### OBJECTIVE:

The aim of our study was to investigate the prognostic impact of lymphocyte-to-monocyte ratio in patients with rectal cancer receiving preoperative chemoradiotherapy, and to clarify the clinical significance of lymphocyte-to-monocyte ratio.

# DESIGN:

Prospectively maintained data of patients with rectal cancer were retrospectively evaluated to clarify the clinical relevance of the lymphocyte-to-monocyte ratio.

## SETTING:

This study was conducted at a single expert center.

#### PATIENTS:

A total of 119 consecutive patients with rectal cancer through chemoradiotherapy followed by total mesorectal excision at our institute were enrolled in this study. Eight patients were excluded because of a lack of laboratory data, and finally 111 patients were assessed in this study.

#### MAIN OUTCOME MEASURES:

The primary outcome measured was the clinical relevance of the lymphocyte-to-monocyte ratio in patients with rectal cancer receiving chemoradiotherapy.

#### RESULTS:

Patients with a low pretreatment lymphocyte-to-monocyte ratio showed poor prognosis significantly both in overall survival and disease-free survival of those with rectal cancer receiving chemoradiotherapy. Multivariate analyses showed that low pretreatment lymphocyte-to-monocyte ratio level, presence of pathological lymph node metastasis (ypN(+)), and high pretreatment serum C-reactive protein level were independent prognostic factors of overall survival and disease-free survival. In addition, time-to-event analysis divided into 2 groups by ypN status showed that low pretreatment lymphocyte-to-monocyte ratio was correlated with poor overall survival and disease-free survival not only in group ypN(-) but also in group ypN(+).

#### LIMITATIONS:

The present study had several limitations, including that it was a retrospective observational and single institutional study with Japanese patients.

## CONCLUSIONS:

The combination of lymphocyte-to-monocyte ratio and ypN status can be a predictive marker of poor prognosis and recurrence among patients with rectal cancer undergoing preoperative chemoradiotherapy.

本論文は、術前化学放射線療法施行後に根治切除をうける直腸癌症例において、Lymphocyte-to-Monocyte Ratioが早期再発および予後予測バイオマーカーとなり得ること、治療方針を決定するために有用となり得ることを報告したものであり、学術上極めて有益であり、学位論文として価値あるものと認めた。

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