

IMPACT OF HIV INFECTION ON PRE-TREATMENT HEMATOLOGIC MARKERS AND INNATE EFFECTOR CELLS AMONG CERVICAL CANCER PATIENTS IN BOTSWANA: IMPLICATIONS ON OVERALL SURVIVAL

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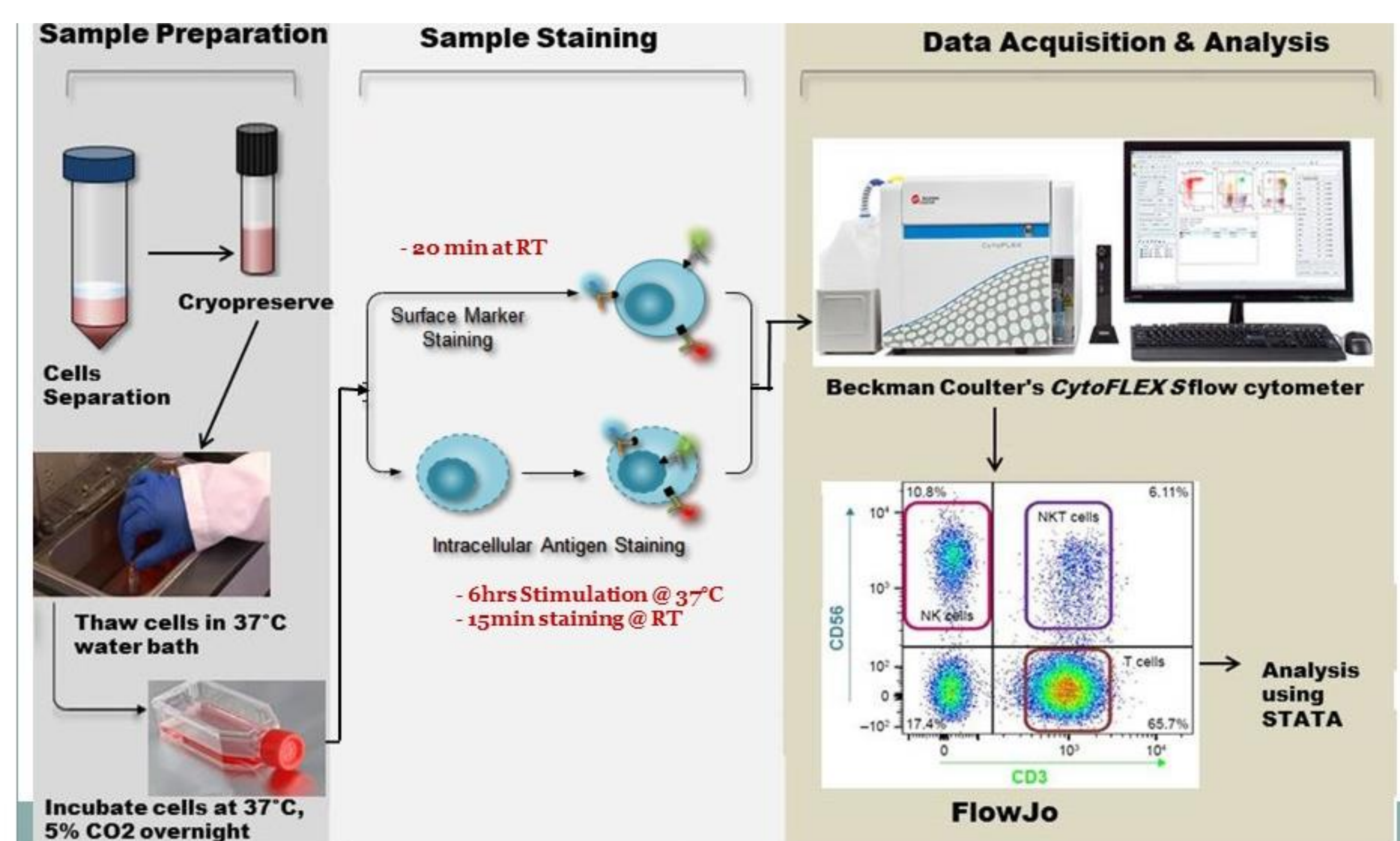
Introduction

- ❖ Substantial evidence demonstrates that HIV
 - causes hematologic abnormalities and
 - debilitates many aspects of both the innate and adaptive immune function.
- ❖ More than 90% of people living with HIV in Botswana are currently receiving anti-retroviral therapy (ART)
 - majority of them have been on treatment for more than 10 years
- ❖ However, overall survival remains poor among HIV-infected women with cervical cancer (CC).
- ❖ Therefore, immune-based strategies to enhance restoration of hematologic markers and innate effector function after prolonged use of ART are needed to improve disease outcome in this population.

Objectives

- ❖ Hypothesis: ART partially restores the HIV-impaired hematologic status and innate effector cell functions
 - leading to poor survival outcomes among HIV infected women with CC.
- ❖ Specific Aims are:
 1. To determine the prognostic value of pre-treatment hematological markers for overall survival (OS) among HIV-infected patients with CC after prolonged use of effective ART.
 2. To analyse the distribution of NK and NKT cell populations among HIV-infected patients with CC in the context of long term use of ART.
 3. To assess the extent of NK and NKT cells effector function recovery among HIV-infected CC patients on HAART.

Methods

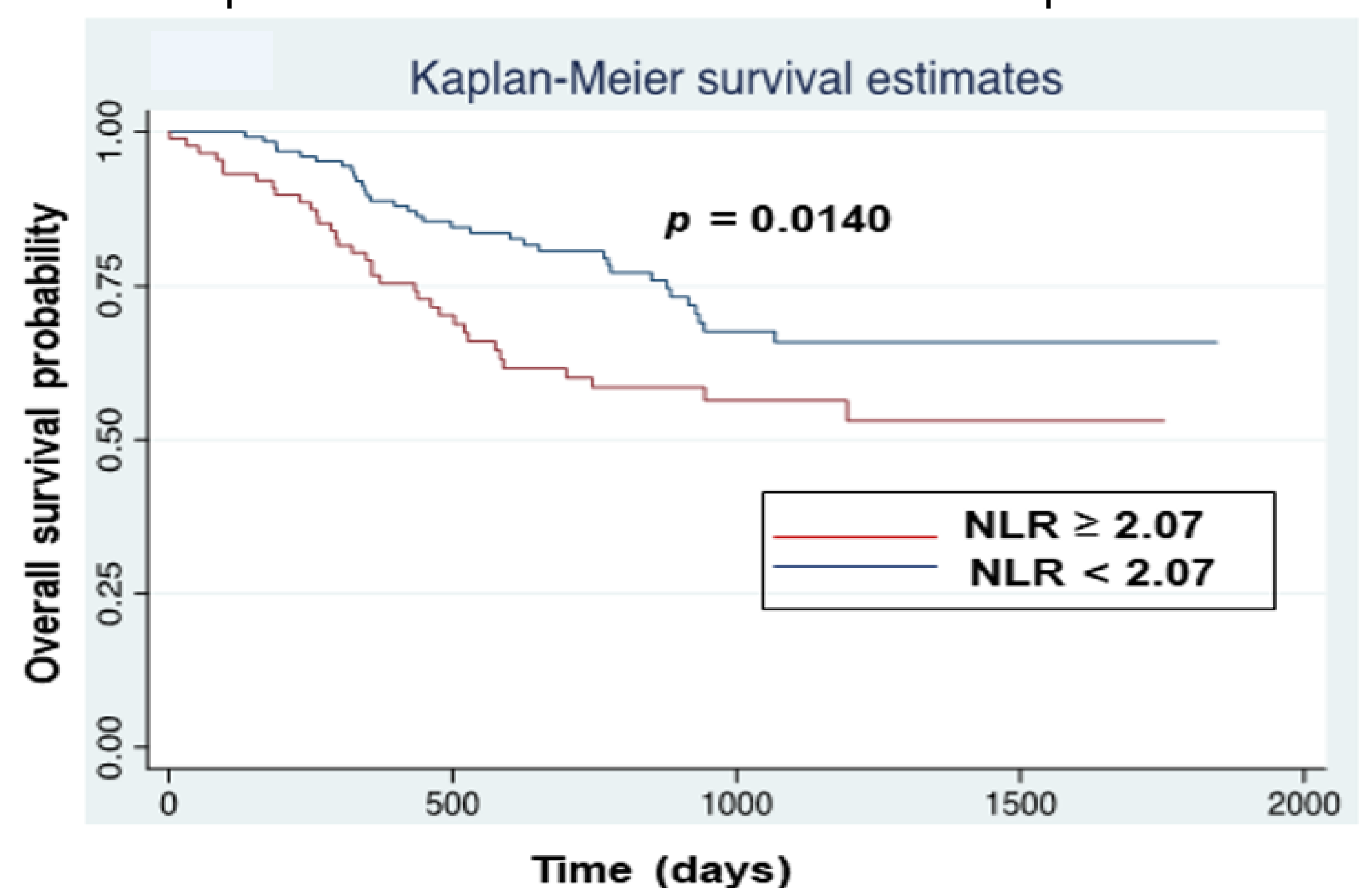


Conclusions

- ❖ This study revealed the predictive value of pre-treatment NLR on OS, among HIV-infected patients with CC after prolonged use of ART..
- ❖ Future studies will determine the extent to which ART helps to restore hematologic markers and innate effector function to inform healthcare practitioners on identification of systemic therapies that could boost antitumor immune responses and improve treatment outcomes for CC in HIV-infected

Preliminary Findings

Figure 1 Kaplan-Meier estimates of overall survival according to high and low Neutrophil to Lymphocyte Ratio (NLR) . Elevated pre-treatment NLR is associated with poor OS



References

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