

# Pregnancy course of 10 women diagnosed with Chronic Lymphocytic Leukemia

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## BACKGROUND:

CLL, is the most frequent leukemia in the western world, yet it is a disease of the elderly with a median age at diagnosis of 72 years old and is more frequent in males. only 2 % are women below 40 years old, this explain the rarity of pregnancy cases. Reviewing the literature on the topic, it is mainly based on anecdotal case reports

## AIMS:

we aimed to analyze cases of pregnancy in a large registry cohort of patients with CLL, report on pregnancy outcome, and effect on CLL or pregnancy course.

## Material and methods:

The cohort is based on data obtained from electronic medical records after receiving approval from the ethical committee for members of Maccabi, the second-largest healthcare organization in Israel, with approximately 2.5 million insured patients<sup>(15)</sup>. All patients included were diagnosed with CLL based on the IWCLL criteria(1), between 1998 to 2022

## RESULTS:

- During the study period, 1836 (40%) women with CLL were in the Maccabi HMO database.
- We identified 67 (1.8%) women below the age of 45 years old, and 10 of them became pregnant after being diagnosed with CLL.
- The median age at diagnosis of this young cohort of patients was 34 years old
- The median interval from diagnosis of CLL till pregnancy was 34 months (1-156).
- Out of 10 pregnancies, 4 resulted in miscarriage all during the second trimester, and 6 gave birth: 4 in normal labor and 2 with cesarian section
- None of the patients received treatment for CLL before or during pregnancy.
- We have looked at blood counts before, during, and after pregnancies. None of the CLL patients had a significant change in white blood count (WBC), lymphocyte %, hemoglobin, and platelet levels (Figure 1). Platelet counts range from 85000 to 376000 mm<sup>3</sup>. These levels are in the normal range or may be attributed to thrombocytopenia during pregnancy.

- None of the patients was hospitalized during pregnancy or was diagnosed with infection, including pneumonia, sinusitis bronchitis or cellulitis, and no antibiotic was prescribed. We have not identified cases diagnosed of preeclampsia or eclampsia in our cohort.

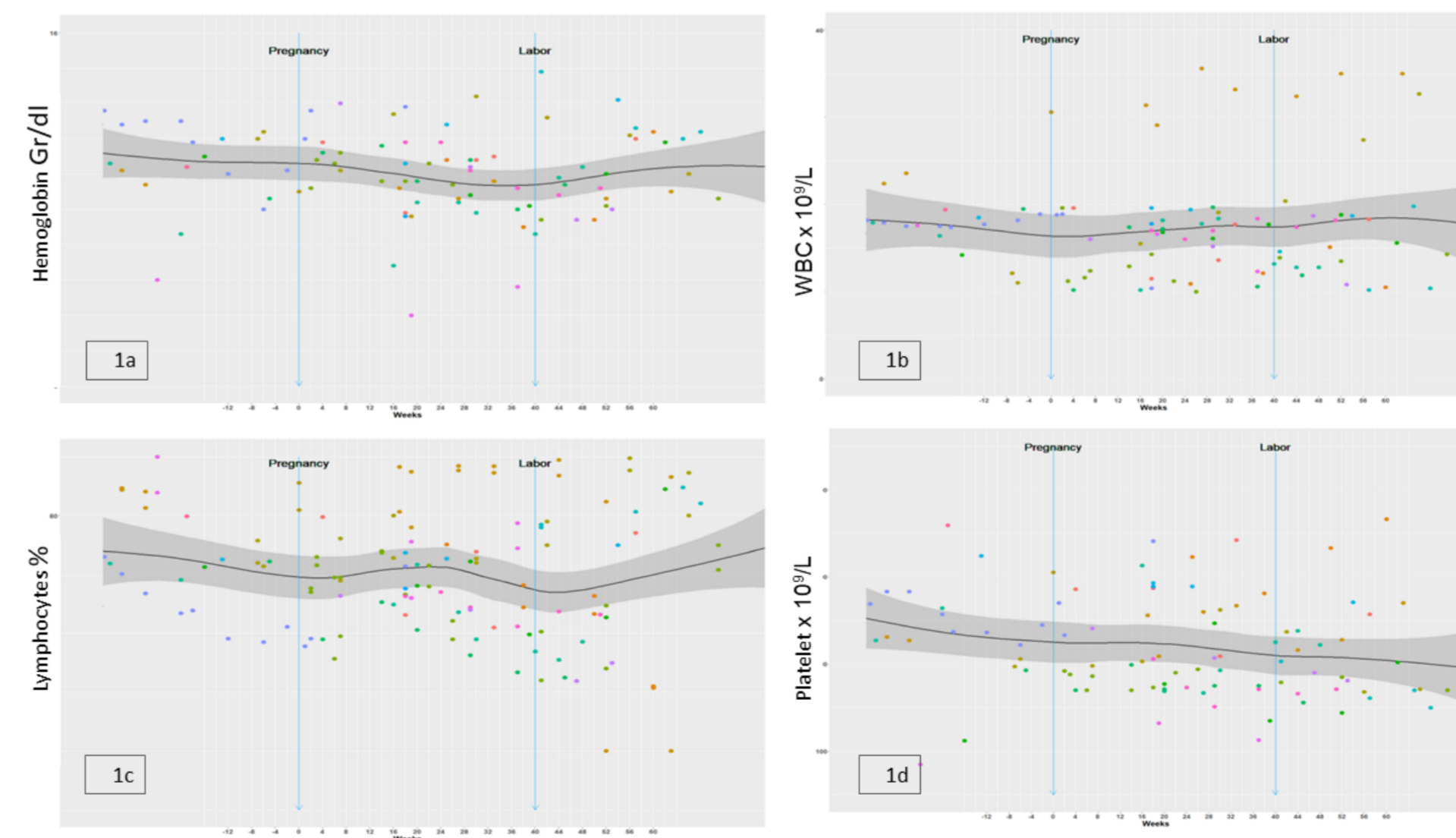


Fig. 1. Blood count before, during and after pregnancy. (The dots represent blood count results, and each color represents a woman). 1a: Hemoglobin level, 1b: WBC value, 1c: Lymphocyte percentage, 1d: platelet counts.

## CONCLUSIONS:

Based on our results the impact of CLL on pregnancy outcomes is still unclear but our piece of data suggest that pregnancy probably has no negative impact on the CLL course.

These may contribute to another level of safety to not prevent pregnancy for young women with CLL.

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