

Background

CD23 expression in follicular lymphoma (FL) is associated with better overall survival (OS). It is known FL cases with inguinal lymph nodes lesion and large-cell morphology are characterized by CD23 expression, which is distinctive feature of these patients, whose prognosis is also favorable. However CD23 prognostic significance in various FL morphological grades and other tumor lesions localization is unclear.

Objective

To determine the CD23 expression prognostic value in different FL grades.

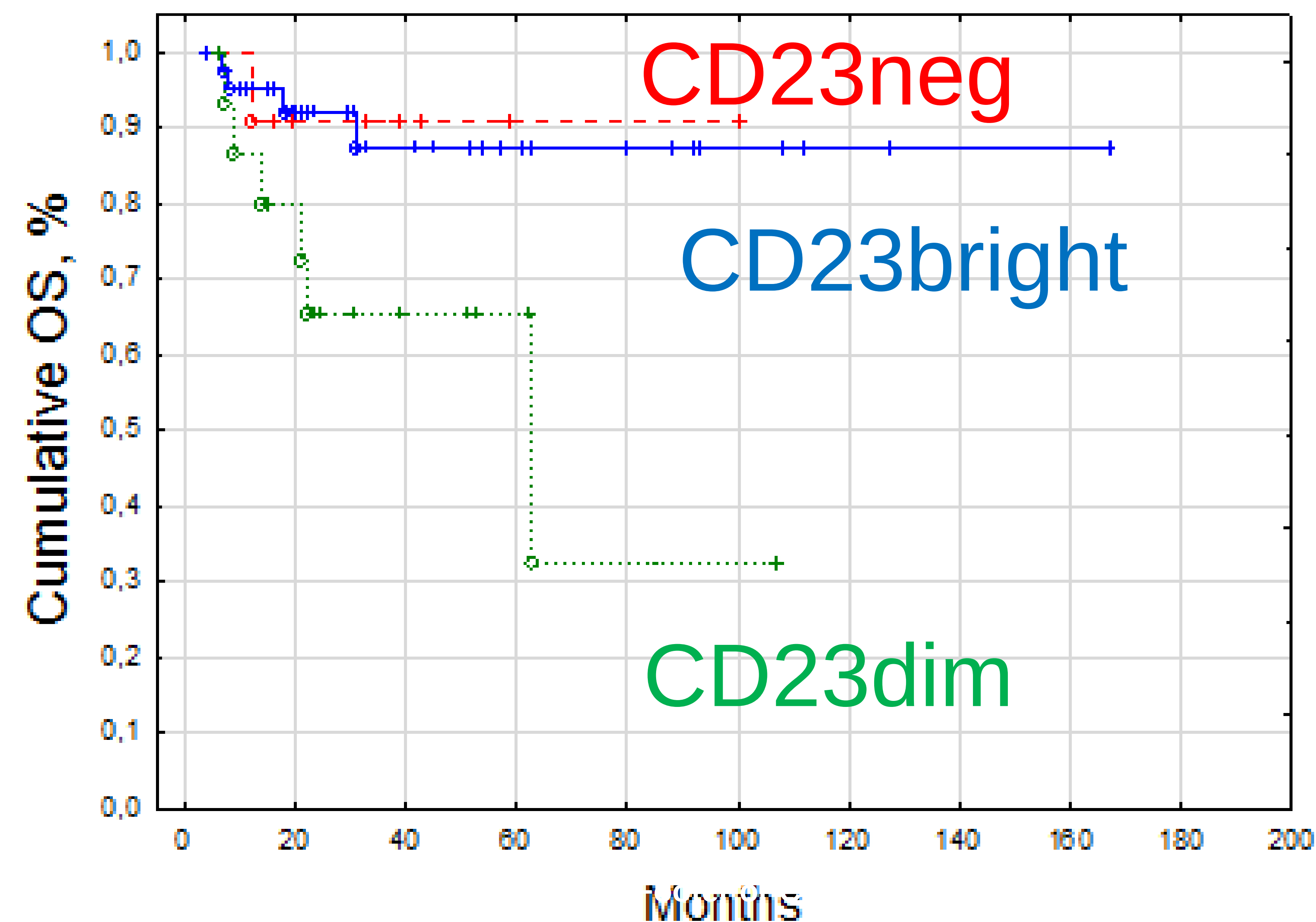
Materials & Methods

DESIGN: CD23 expression pattern was evaluated by immunohistochemistry. Three groups of patients were identified: expression is absent (CD23neg), intensive expression in all cells (CD23bright), expression is weak and/or present in part of tumor cells (CD23dim).

PATIENTS: the study included 206 FL patients, among them: 93 FL1-2 grade, 68 FL3A, 45 FL3B and transformation into DLBCL. In 102 patients inguinal region involvement was noted.

RESULTS

In general group OS was similar in CD23neg, CD23bright and CD23dim groups. There was also no correlation between OS and CD23 expression in patients with and without iliac region involvement. However, we found CD23 prognostic value depends on FL grade. In FL1-2 and aggressive FL there was no association between OS and CD23 expression. In FL3A patients OS in CD23dim group was lower than in the CD23neg and CD23bright groups. The 5-year OS in the CD23neg, CD23bright, and CD23dim groups was 91%, 87%, and 65%, respectively. The level of these differences tended to be significant (Log-rank test, $p=0.09$).



Conclusions

Previously shown association between CD23 expression, lesion localization and OS was not confirmed. However CD23 expression pattern analysis revealed fact not previously known. It is the intermediate CD23 expression pattern is unfavorable prognostic factor that is realized in FL3A patients. It is worth noting that combining CD23dim with CD23neg in one group results in "favorable" status of compared CD23bright group. Thus expression cut-off is important and we assume this phenomenon but not true CD23bright value have been previously noted. The heterogeneous CD23 expression in the tumor population probably indicates clonal tumor heterogeneity, which correlates unfavorable disease course.