

were 1.3, 2.2 and 4.0 for the presence of 1, 2 and 3 factors respectively. Patients with 0, 1, 2 and 3 factors had a 3 years OS of 82.3, 77.3, 69.5 and 38.1% respectively ( $p=0.001$ ). The areas under the curve were not significantly different ( $p=0.9754$ ) for OS between our score and IPS. *Conclusions.* These results provide evidence of a satisfactory discrimination ability of the prediction model for OS, with a predictive power similar to IPS. A larger evaluable cohort is required to have a better prognostic model for PFS. This study is a first step in establishing the external validity of these models before use in clinical practice, together with geriatric assessment, in order to offer adequate treatment to patients.

## P062

### OUTCOMES AND PROGNOSTIC FACTORS IN HODGKIN LYMPHOMA – A SINGLE CENTER EXPERIENCE

A. Pinto, D. Mota, M. Santos, R. Guilherme, M. Gomes, L. Ribeiro  
*Clinical Hematology Department, Coimbra University Hospital Center, Coimbra, Portugal*

*Background.* Identification of patients with Hodgkin lymphoma (HL) at risk of treatment failure remains an important unsolved question. Several prognostic models have been proposed to define risk-adapted therapeutic strategies, avoiding overtreatment and identifying in whom standard treatment is not sufficient. *Aims.* To test validated prognostic factors and identify other predictors of survival in a cohort of patients with classical HL (cHL) in a tertiary health institution. *Methods.* Retrospective analysis of patients with cHL treated between 1990 and 2015. Univariate analysis was performed and significant predictors at the level of 0.05 were used to adjust a multivariate Cox regression model. *Results.* We included 355 cHL patients, mainly males (55.2%) with a median age at diagnosis of 29 years (12-80). The most prevalent histological subtype was nodular sclerosis (78.3%). Ann Arbor stage III/IV was observed in 41.1% ( $n=146$ ) patients, B symptoms in 54.6% ( $n=194$ ) and bulky disease in 22.8% ( $n=81$ ). According to GHSG criteria, 50.1% ( $n=178$ ) had advanced disease of which 49.4% ( $n=88$ ) had an IPS $\geq$ 3. Among the 344 patients treated, ABVD was performed in 210 (59.2%); MOPP/ABVD in 78 (21.9%); MOPP/MOPP like in 30 (8.5%); BEACOPP in 25 (7.0%); other regimens in 17 patients (4.8%) and radiotherapy alone in 11 (3.1%). Overall response rate was 83.9% (77.2% of complete responses). With a median follow-up of 100.1 months (0.3-316.0), overall survival (OS) at 5, 10 and 20 years was 84.3%, 78.1% and 67.8% and progression free survival (PFS) was 71.6%, 67.3% and 57.9%, respectively. We analyze the prognostic significance of several factors accepted previously with regard to survival. On multivariate regression analysis only 3 factors were associated with impact on OS: age (HR 1.04; 95%CI 1.02-1.06,  $p<0.001$ ); hemoglobin level (HR 0.78; 95%CI 0.66-0.93,  $p=0.005$ ) and LDH $>2\times$ ULN (HR 2.13; 95%CI 1.06-4.28,  $p=0.034$ ). Four factors were predictors of PFS: age (HR 1.02; 95%CI 1.01-1.04,  $p<0.004$ ); lymphocyte count (HR 0.60; 95%CI 0.39-0.92,  $p=0.02$ ), LDH $>2\times$ ULN (HR 2.55; 95%CI 1.31-4.97,  $p=0.006$ ) and Ann Arbor stage III/VI (HR 2.40; 95%CI 1.18-4.86,  $p=0.015$ ). *Conclusions.* This data provides evidence for age, hemoglobin and LDH as independent predictors of OS and age, lymphocyte count, LDH and Ann Arbor stage as predictors of PFS in patients with cHL. Further work in larger groups is warranted to create an accurate predictive model for adequate stratification of newly diagnosed patients.

## P063

### COMBINED PROGNOSTIC ROLE OF TARC PROTEIN AND PET/CT IN PATIENTS WITH HODGKIN LYMPHOMA

K. Husi<sup>1</sup>, Á. Illés<sup>1</sup>, Á. Jóna<sup>1</sup>, B. Nagy<sup>2</sup>, Z. Fejes<sup>2</sup>, S. Barna<sup>3</sup>, Z. Miltényi<sup>1</sup>

<sup>1</sup>Department of Hematology; <sup>2</sup>Department of Laboratory Medicine; <sup>3</sup>University of Debrecen, Faculty of Medicine; Scanomed Ltd, Debrecen, Hungary

*Introduction.* It is well known that long-term survival of Hodgkin lymphoma (HL) patients is very favourable, that is why we have to detect those high-risk patients in time who don't respond to first-line therapy on a desirable way. Nowadays interim and restaging PET/CT is widespread, but there are some biomarkers in addition, which may help us to choose the best way of therapy and to avoid undertreatment. *Patients and Methods.* We examined HL patients who were treated in our institute from September 2013 to March 2016. Our aim was to detect whether serum TARC (Thymus and Activation-Regulated Chemokine) protein alone or combined with PET/CT is appropriate for being a helpful biomarker in HL patients or not. *Results.* During this period we collected serum samples from 39 patients treated with Hodgkin lymphoma. We have got samples from 3 different times (before treatment, after 2 cycles of chemotherapy and after 6 cycles of chemotherapy) in the case of 20 patients. The mean age of the 20 patient (11 males and 9 females) was 42,4 years (18-75 years) at the time of the diagnosis. Three of them were in an early stage and 17 of them were in advanced stage. According to our results the activity of TARC protein measured before treatment is fit for indicating extranodal manifestations, the presence of bulky disease, and the extension of the disease, but neither it's activity after 2 cycles of chemotherapy, nor at the end of treatment indicated refractory disease nor alone, neither combined with interim PET/CT. *Conclusions.* Nevertheless, Hodgkin lymphoma is one of the best curable malignancies; there are no methods except PET/CT which may help us to identify high-risk patients in time. The exact role of biomarkers needs further investigations.