

THE RELATION BETWEEN HEPATITIS C INFECTION AND CELL OF ORIGIN (COO) OF DIFFUSE LARGE B-CELL LYMPHOMA (DLBCL) AND THE PROGNOSTIC VALUE OF BOTH OF THEM (EGYPTIAN EXPERIENCE).

Sara Denewer , Mai Denewer

Oral pathology, Faculty of dentistry- Delta university, Hematology, Oncology center of Mansoura university Egypt, Mansoura, Egypt

Background

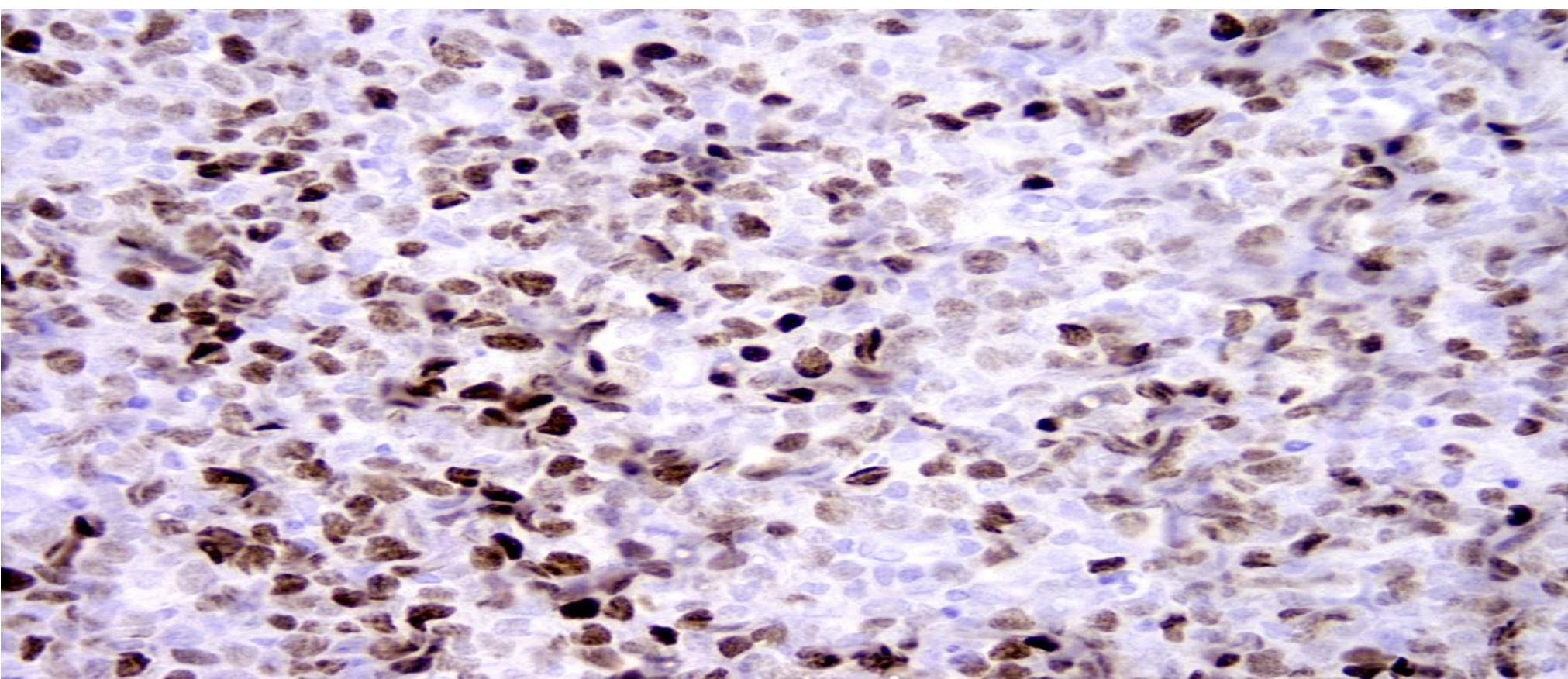
COO has a significant prognostic impact on DLBCL outcome. HCV plays a great role in B-cell proliferation and transformation to NHL.

Objective

This study was conducted to emphasize the impact of COO classification on survival in DLBCL and its correlation to HCV infection.

Patients & Methods

The mean age of our patients was 55 years and 58% of them were female. DLBCL histopathological diagnosis was done by Hematoxylin and eosin–stained sections from formalin fixed, paraffin-embedded tissue block for the tumor with CD20 stain. COO was detected by using Hans algorithm. RT PCR for HCV infection was done for all patients. All patient received induction with CHOP protocol.



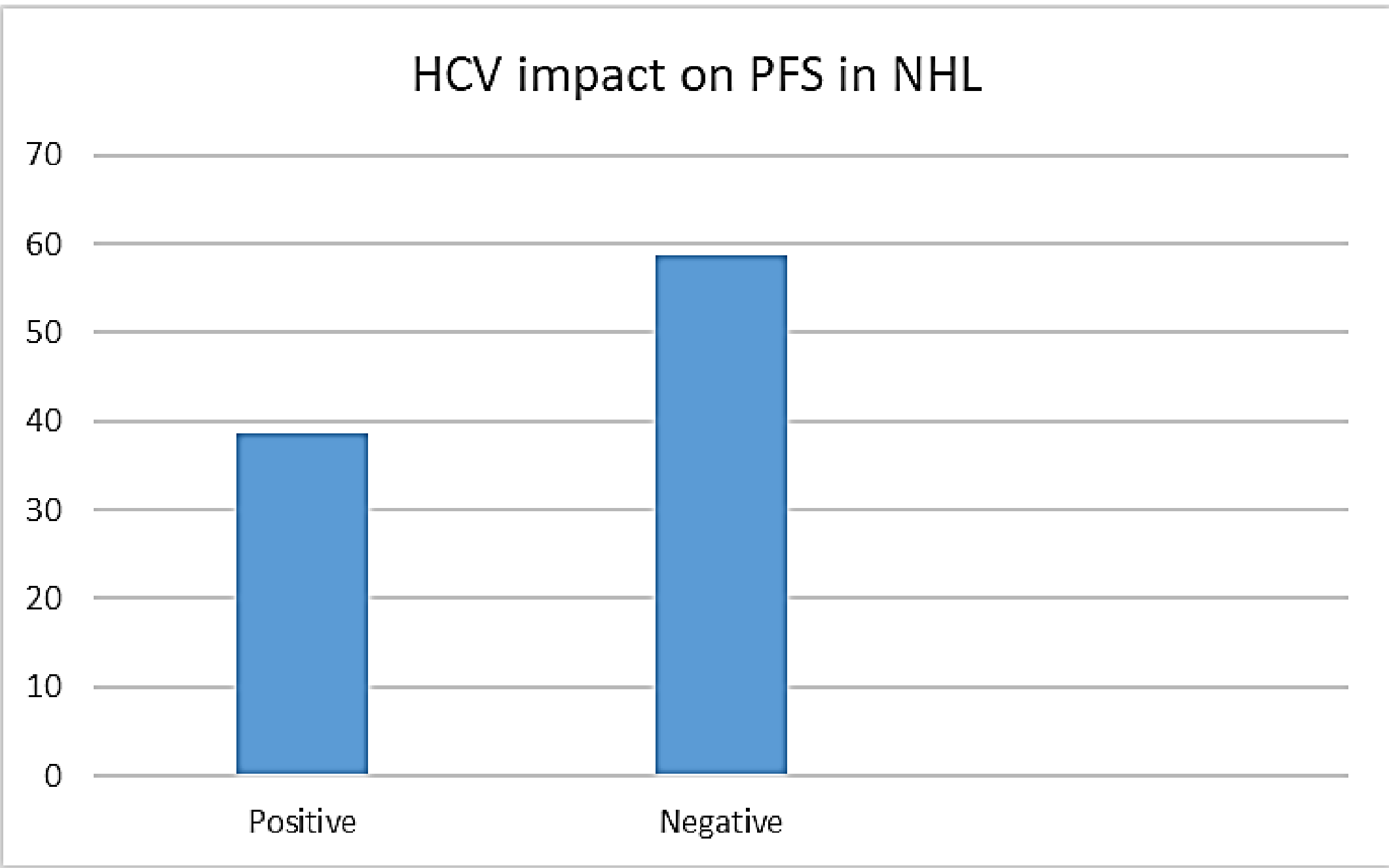
Photomicrograph of MUM1 expression in ABC DLBCL showing nuclear reaction in transformed lymphocytes (PAP- DAB 400).

Results

The mean age of our patients was 55 years and 58% of them were female. According to international prognostic index (IPI) about 36% of cases were low intermediate, 26% high intermediate, 20% were high IPI and only 8% were low. According to COO, about 68% of cases (34) were non GCB while only 32 % (16) were GCB. Our current study declared that 48% of patients (24) were positive to HCV and 52% (26) were negative. About 51.5% of non GCB cases were stage IV in correlation to only 35.5% in GCB cases with significant p value (p value

= 0.002). Also, about 24 % of non GCB cases were high IPI in correlation to only 12 % in GCB although not significant. Also about 21 % of non GCB cases showed relapse in comparison to only 11.8 % in GCB with no significance. All of these result indicates that non GCB predicts dismal outcome in NHL.As regard correlation between survival and COO, GCB cases showed significantly prolonged PFS and OS (78, 88 months) in comparison to only (40.5, 31 months)) in non GCB (p value 0.054, 0.024). There was a significant correlation between HCV positivity and attaining CR (p value 0.025) in which 66.7% of HCV negative patients entered CR while only 34.8 % of HCV positive entered CR. Also HCV positive patients showed shortened PFS and OS (39, 28 months) in comparison to HCV negative cases (58,48) although not statistically significant. All of these indicates poor prognosis of HCV positivity in NHL. As regard correlation between HCV status and COO, about 25 % of GCB cases were HCV positive in comparison to only 58.8 % of non

GCB cases were HCV positive. So, a significant correlation between HCV positivity and non GCB NHL was found (p value 0.026). In multivariate analysis, GCB, low and low intermediate IPI and CR achieving are considered an independent predictors of survival (p value 0.004, 0.015, 0.001).



Conclusion

Hans algorithm is a good predicator of survival in B-NHL. Also HCV positivity has a poor impact on outcome of NHL. There is possibly a correlation between HCV infection and cell of origin of lymphoma which needs further analysis.