Intact B cell follicles identify mixed cellularity (MC) Hodgkin lymphomas (HL) with clinical and prognostic features of lymphocyte rich classical hl (cHL)

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Background: The WHO distinguishes nodular lymphocyte predominant (LP) HL from cHL. cHL is divided into nodular sclerosis (NS), MC and lymphocyte rich cHL (LR). The WHO separated MC from LR by the presence of eosinophils. Follicular and interfollicular cHL have been described to complement the WHO scheme. We hypothesized that preservation of follicular architecture would reclassify MC as cHL related to LR (LRcHL).

Methods Slides and files were reviewed from 131 patients diagnosed from 1991 to 2007. B cell follicles and absence of sclerosis was used to separate MC and NS from LRcHL. EBER, CD20, CD30 and CD15 was used to separate LP from LRcHL.

Results Review resulted in 65 NS, 19 MC, 32 LRcHL and 15 NP cases. B-symptoms were frequent in MC (11/15) compared to LRcHL (6/28) and LP (1/6). Advanced stage III/IV was seen in 10/52 NS, 12/15 MC, 1/26 LRcHL and 0/5 LP patients. Patients died in 8/65 NS, 6/17 MC, 1/27 LRcHL and 3/14 LP. Male to female ratio was for NS 33:32 (1:1), MC 13:6 (2:1), LR 23:9 (2.6:1) and LP 14:1. MC patients were older, higher stage and B-symptoms were more frequent than in NS and LRcHL. Recurrence was similar in all HL.

Conclusion(s) Follicles imparting a follicular or interfollicular pattern to HL identify a subgroup of MC with clinical features of LR. Other MC patients are older, have B-symptoms, advanced stage and bad outcome.