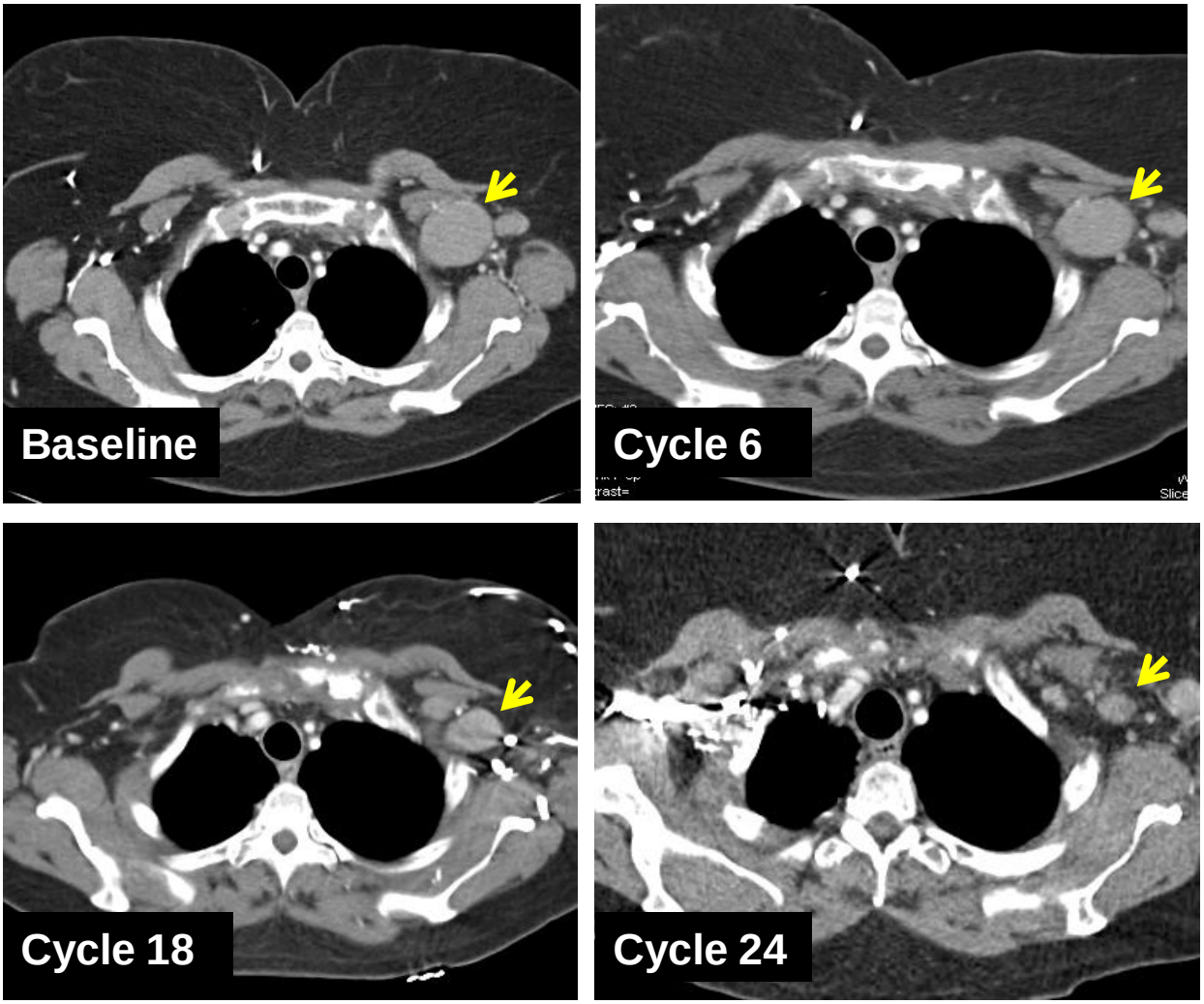

Figure S1. Case study of patient 001001. Shown are CT images at pre-lenalidomide baseline, and after cycles 6, 18 and 24 of lenalidomide therapy. This 45 year old woman was diagnosed with stage IIB cHL and obtained a CR following front-line therapy (ABVD x 6 plus 36 Gy IFRT). After 2 years, the patient relapsed in the axilla, spleen, and mediastinum. The patient received salvage ESHAP x 1 cycles (no response), and GVD x 3 cycles (PR) followed by a BEAC autologous SCT resulting in a CR. 14 months following the ASCT the patient relapsed in her left axilla with biopsy proven cHL. She obtained SD with SGN-35 x 4 cycles but was removed from the study due to an cardiac AE. She had PD on baseline scans prior to lenalidomide therapy, initially had modest decreases in lymph node size, and obtained a formal PR after 18 cycles. She has now received ≥ 43 cycles of lenalidomide (current dose: 20 mg) with a continuing PR. Arrow indicates involved left axillary lymph node.

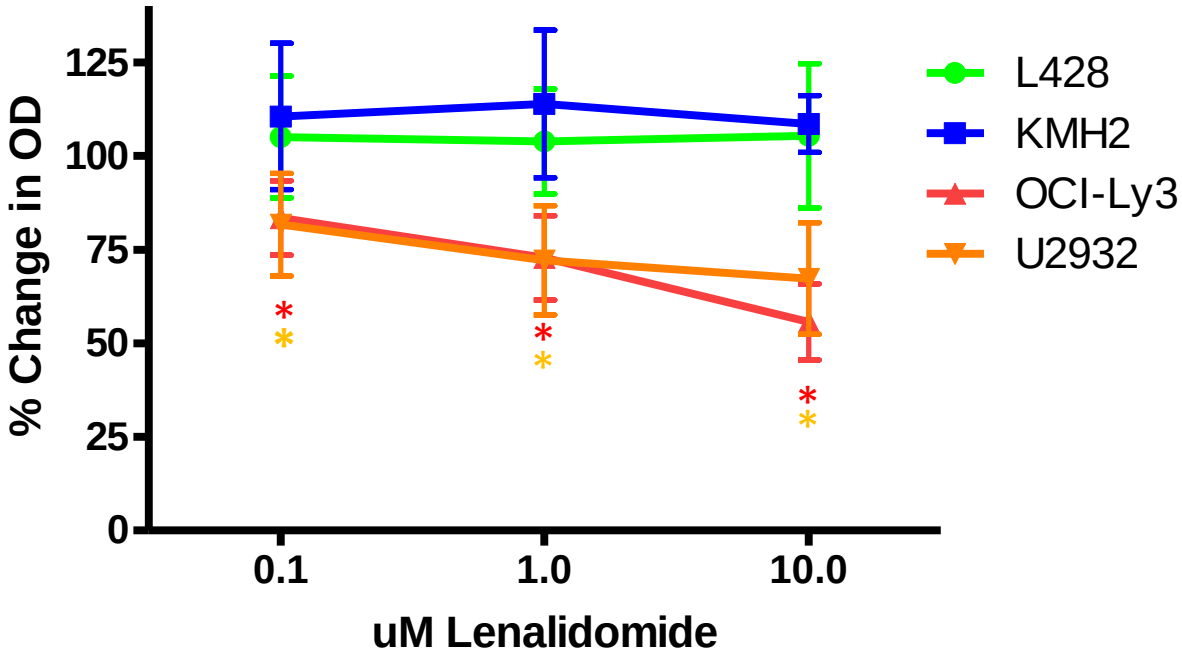

Figure S2. Lenalidomide does not affect the growth or survival of cHL cell lines in vitro. cHL (L428, KMH2) or DLBCL (OCI-Ly3, U2932) cell lines were cultured in 96 well plates with vehicle (DMSO) or the indicated concentrations of lenalidomdie for 72 hours and then assayed for viability using WST-1. Data is shown as the percent WST-1 OD (viability), compared with control cells cultured in DMSO only. There was no significant change in L428 or KMH2 viability. In contrast, both OCI-Ly3 and U2932 DLBCL lines had significant decreases in viability at 72 hours. * P <0.01 compared with DMSO control. Results represent the mean ± SD of 3-4 independent experiments performed in triplicate.

Methods: in vitro cell line growth and survival after lenalidomide exposure

HL (L428, KMH2 provided by Dr. R. Baiocchi, Ohio State University) or activated type DLBCL (OCI-Ly3, UL2932 provided by Dr. E. Oltz, Washington University) lines were cultured in RPMI-1640 supplemented with 10% fetal bovine serum, 100 U/mL penicillin, 100 mcg/mL streptomycin, 1X non-essential amino acids, 10 mM HEPES free acid, 2 mM L-glutamine, 1 mM sodium pyruvate (Hyclone), and maintained in log-phase growth. Lenalidomide (provided by Celgene) or vehicle (DMSO) was added to wells to obtain final concentrations of 0, 0.1, 1.0, or 10 μM, and after 72 hours the cells were assayed for viability using a standard WST-1 assay following the manufacturer's instructions (Roche). In these experiments, the OCI-Ly3 and UL2932 lines were used as a positive control for lenalidomide growth arrest.