



Figure S2. LETd optimization using ‘distal-patching’:  $D_{RBE|LEM-I}$ ,  $D_{RBE|mMKM}$  and LETd statistics for GTV and HD-PTV. a–c)  $D_{RBE}$  parameters D2%, D50%, D98% for LEM-I and for mMKM, LETd statistics for small tumor, large tumors with unpached plans and distally-patched plans for HD-PTV. (d–f)  $D_{RBE}$  parameters D2%, D50%, D98% for LEM-I and for mMKM, LETd statistics for small tumor, large tumors with unpached plans and distally-patched plans for GTV. (n = 22, small = 9, Large unpached = 13, Large-distally patched). \*: p < 0.05, NS: p = not significant.