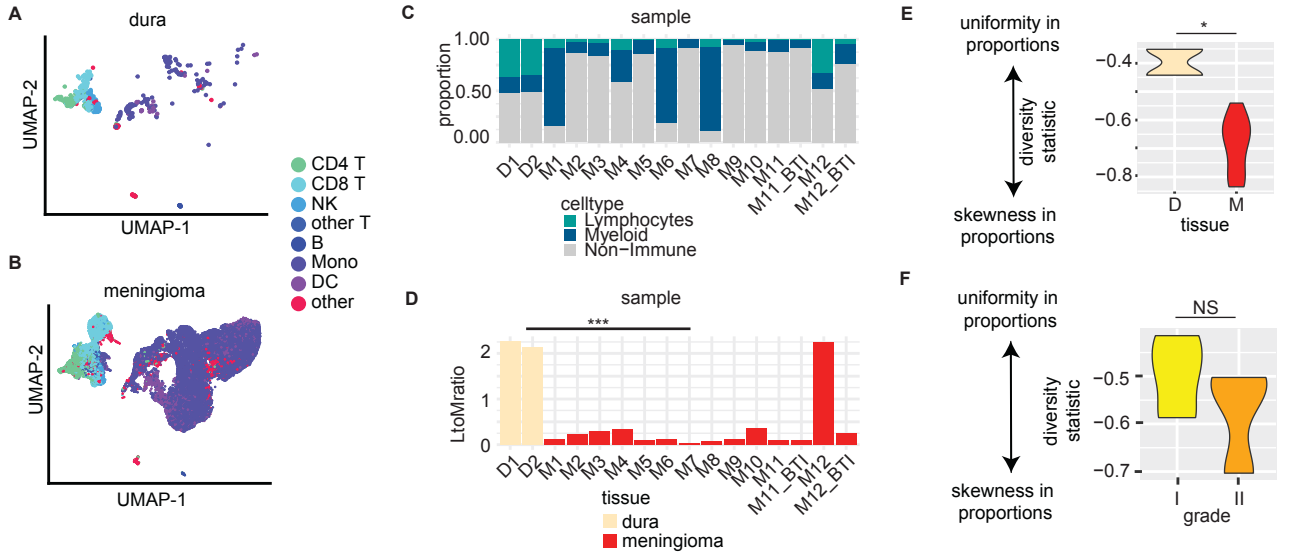

Figure 4: Meningiomas exhibit reduced cell type diversity. A-B UMAP of subclustered PTPRC+ (CD45) immune populations in dura (A) and meningiomas (B). C Barplot of proportion of immune subpopulations in each sample. D Barplot of lymphocyte to myeloid cell ratio in each sample. E-F Violin plot of cell type diversity statistic in dura versus meningioma (E) and in WHO 2016 grade I vs WHO 2016 grade II meningiomas (F). Abbreviations: D: dura, M: meningioma, p<0.001:***, p<0.05: *, NS: non-significant