Title:	Myeloid derived suppressor cells and hsv-1 latency
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Abstract:	We established that MDSCs are important players in HSV-1 latency and reactivation. The project focused on looking at the effects of MDSCs in HSV-1 latency, both in vivo and in vitro. Initial experiments focused to analyse the kinetics of immune cells in correlation with LAT expression in various organs. It was observed that CD8+ T cell infiltration and LAT expression go hand in hand, indicating that CD8+ T cells have a role in establishment and maintenance of latency. Based on these findings, the next set of experiments aimed at finding the changes in reactivation pattern of HSV-1 in TG by culturing them in vitro in the presence and in absence of MDSCs. It was seen that when the TG cells were cultured with MDSCs, virus reactivation was enhanced which was confirmed using plaque assay. To verify if the same is happening is in vivo, in vitro generated MDSCs were transferred in infected animals and the LAT expression was used to determine any changes in the latent state. A decrease in LAT expression was seen in the TGs of animals that received MDSCs which indicated viral reactivation in the presence of MDSCs. All the results collectively show that MDSCs enhance reactivation of HSV-1 in TG both in vivo and in vitro. Future experiments would be in line to identify the exact mechanism by which MDSCs affect latency which so far is suspected by suppressing the function of CD8+ T cells which are essential for establishment and maintenance of latency.
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