SODIUM ANTIMONY GLUCONATE (SAG) MEDIATES ANTILEISHMANIAL EFFECT BY STIMULATING INNATE AND CELLULAR ARMS OF THE IMMUNE SYSTEM

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Pentavalant antimony complexes, such as Sodium antimony gluconate (SAG) is still the first choice for chemotherapy against various forms of leishmaniasis including visceral leishmaniasis or kala-azar. Although the requirement of a somewhat functional immune system for the anti-leishmanial action of antimony is known, the cellular and molecular mechanism of action of SAG is not clear. Our study very clearly showed that SAG treatment induces not only activation of important components of the intracellular signaling pathway but also enhances class I restricted antigen presentation. It was also observed that SAG treatment stimulates proliferation of both $CD4^+$ and $CD8^+$ T cells directly independent of antigen presenting cells.