THE USE OF RECOMBINANT GAMMA INTERFERON ASSOCIATED WITH
PENTAVEALNT ANTIMONY IN THERAPY FOR VISCERAL LEISHMANIASIS.

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Immunologic dysfunction is an important aspect of the
visceral leishmaniasis. Several defects have been described
including the absence of gamma interferon (IFN) and
interleukin 2 production during the active disease. The
failure of the current therapy (SbV) for visceral
leishmaniasis is about 15%. The alternative drug,
amphotericin B, has high toxicity and it is not easily
administered to some patients. Leishmania is an
intracellular parasite of monocytes/macrophages. Interferon
gamma has been demonstrated to augment monocyte/macrophage
capacity to eliminate intracellular leishmania and other
intracellular microorganisms. IFN-gamma has been given to
patients with leprosy, AIDS and cancer with minimal toxic
effects. Monocytes from IFN-gamma treated patients have
increased capacity to generate oxygen-metabolites, an
important mechanism for intracellular killing of microbes.

Based on these observations, we evaluated the combination of
recombinant human interferon gamma (rhuIFN-gamma) and
pentavealen antimony (SbV) in patients with refractory
visceral leishmaniasis or patients with severe form of the
disease. Daily administration of rhuIFN-gamma at a dose of
100μg/m² IM daily in combination with 50mg in a dose of
20mg/kg was given for 10-20 days. The trials were carried
out into two groups: Group A: six patients who failed to
respond to several courses of pentavealen antimonial alone.
Group B: nine patients with severe manifestation of the
disease. The criteria for the diagnosis and the control of
the therapeutic response in both groups was made by the
demonstration of viable leishmania in splenic aspirate. In
the group A 2 of 6 patients did not respond to the first 10
days course or combined therapy and required an extra 20
days therapy. From the 3 patients of the group B, one
required an extra 10 day course of combined therapy. The clinical course showed that the signs and symptoms dramatic disappeared during therapy, and the immune response to *L. donovani* antigen was restored earlier than in retrospective controls. The combination therapy was well tolerated. Fever was the only side effect noted during the gamma interferon therapy. We conclude that the use of rHuIFN-gamma plus sov is a potential therapy for visceral leishmaniasis.