Table S1: Summary of magnitude of HIV-VL co-infection

Author(s) year of publication	Country	Focus of study (Objectives)	Methods	Participants	Main findings
Rachel ter Horst et al., 2008	Ethiopia	To assess its impact and to identify determinants of VL relapse and survival	Longitudinal follow up study	**1947 consecutive pts were followed and 604 were co-infected with HIV-VL**	• Among 195 pts receiving ART, 31.3% had ≥ 1 VL & 14.4% dead • Among 161 pts who did not receive ART, 26.1% had ≥ 1 VL & 6.8% dead • 54 pts who received ART & 58 pts who didn't receive ART had ≥ 1 VL relapse
Koert Ritmeijer et al., 2011	Ethiopia	To assess the effectiveness of high-dose AmBisome monotherapy and identify risk factors for treatment failure.	Retrospective cohort analysis	• 289 VL pts included in the analysis • **195 HIV-VL co-infected**	• Of the 195 HIV-VL pts , 116 (59.5%) had primary VL and 79 (40.5%) had VL relapse. • High dose AmBisom for VL is safe and effective in severely ill HIV pts, safe but less effective in HIV+ pts. Combining AmBisome with another drug may enhance its effectiveness in HIV+ VL pts. SSG should be avoided for tx of VL in HIV pts.
Prabhat K. Sinha et al., 2011	India	To assess the long-term treatment outcomes in VL-HIV–coinfected patients treated with liposomal amphotericin B	Retrospective cohort study	**55 cART-naive VL-HIV infected patients**	• The median CD4 cell count at VL diagnosis was 66cells/µL • 27 pts (49.1%) presented with VL relapse • The overall tolerance of Liposomal amphoterecine B was excellent, with no interrupted treatment.
Zewdu Hurissa et al., 2010	Ethiopia	To describe the clinical presentation of pts with VL with and without HIV co-infection and factors associated with poor outcome	Retrospective review	• 241 VL pts included in the analysis • **92 HIV-VL co-infected**	• Co-infected patients had a poorer outcome i.e. either death or treatment failure (31.5%vs. 5.6%,P< 0.001).

JOSE A. MIRA et al., 2004	Spain	To assess the frequency of VL relapses in individuals receiving HAART	Retrospective cohort study	**1715 pts who received HAART and 87 were HIV-VL co-infected**	• 10 of them received secondary chemoprophylaxis & the rest didn't • 8 (38%) pts without secondary chemoprophylaxis showed a VL relapse • The frequency of VL relapses in pts receiving HAART is high.
Iúri Paz Lima et al., 2013	S. America	To describe the coinfection HIV/L. infantumin order to highlight the importance of the problem and to discuss the clinical characteristics	Both Retrospective & prospective cohort study	224 pts with HIV-VL (L-infatum) were included in the study	• 185 (83.2%) pts were male, principally between 20-40 years of age • 16.8% of the cohort died
Rafael de la Rosa et al., 2002	Spain	To assess whether the extensive use of HAART has decreased the incidence of symptomatic VL in HIV-infected patients & its risk factors for overt VL.	Longitudinal follow up study	• 479 HIV-1 infected pts receiving HAART were included in the analysis • **21 pts were found to be VL-HIV co-infected**	• The use of HAART is the main independent factor associated with VL (protective) • CDC clinical category C at entry of the cohort & CD4+ cell counts below 300 cells/mm3 during the follow up were also independently associated to VL
JUAN A. PINEDA et al., 1998	S. Spain	To appraise the prevalence of VL in patients infected with HIV-1 in S. Spain and to identify factors associated with this disease	Cross-sectional study design	• 291 HIV-1 infected pts were included in the analysis • **32 pts were found to be VL-HIV co-infected of them 13 (41%) pts were found to be subclinical cases**	• CDC clinical category C was the factor most strongly associated with the disease. • Pts with subclinical cases of infection were found in all CDC categories. • IVDU showed a higher prevalence than the remaining pts but such an association was not independent.
Mulat Yimer et al., 2014	Ethiopia	To determine the proportion of VL/HIV co- infection among clinically confirmed VL patients in the endemic foci of the Amhara Region.	Institution based Cross-sectional study design	• 409 HIV infected pts were included in the analysis • **74 (18.1%) pts were found to be VL-HIV co-infected**	• Males were more VL/HIV co-infected 74 (19.4%) than females (0%) ($P < 0.012$) • The age groups from 21-35 were the highest infected group 68 (16.6%) ($P<0.001$) • Those patients who came from rural areas were more VL/ HIV co-infected 46 (35.1%) than urban dwellers 28 (23.1%) ($P < 0.001$)

Suzi Lyons et al., 2003	Ethiopia	To identify characteristics that increased the risk of mortality in Ethiopian VL patients	Retrospective review	• 791 pts treated for VL were included in the analysis • From 213 individuals tested for HIV, **49 (23%) were HIV positive**.	• The case fatality rate was 18.5% (146) (95% CI: 15.8–21.3%) • HIV+ were more than four times more likely to die than those who tested HIV- (OR 4.5, 95% CI: 1.8–11.4).
Gla´ucia F. Cota, et al., 2014	Brazil	To assess the clinical-laboratory profile and outcomes of VL-HIV-coinfected patients using a group of non HIV infected patients diagnosed with VL during the same period as a comparator.	prospective cohort study	• 168 pts were evaluated, of whom 90 were confirmed to have VL. • **46 pts (51%) were HIV co-infected**	• HIV infected pts had a lower rate of fever & splenomegaly compared with immune-competent pts • The VL relapse rate in 6 months was 37% among HIV infected pts despite receiving 2ndary prophylaxis • The main risk factors for poor outcomes at 6 months after the end of the treatment were HIV infections, bleeding & a previous VL episode.
Leonardo Cordenonzi Pedroso de Albuquerque, et al., 2014	Brazil	To describe the main features of VL, both related to & independent of HIV infection	prospective cohort study	1,779 new pts with VL, **33 of whom were also infected with HIV**	• VL/HIV was more common in pts aged b/n 18 & 50 years. • There were more male pts in the VL/HIV group than in the VL group • Relapse rates were also considerably higher in the VL/HIV (9.1%) group than in the VL group (1.5%)
Getahun Mengistu, et al., 2007	Ethiopia	To assess the clinical and laboratory manifestations and factors associated with mortality and morbidity of VL with or without HIV co-infection	hospital-based case series study	• 221 VL pts participated in the study • Out of 212 VL cases tested for HIV, **87 (41%) were HIV co-infected**	• The case fatality rates among HIV+ &HIV- VL cases were 39.3% and 13%, respectively. • HHIV infection, BMI of 15 & below, bleeding tendency, & age>20 years were identified as independent predictor for death.
Sakib Burza, et al., 2014	India	We describe the baseline characteristics of the 159 HIV-VL co-infected patients treated with liposomal amphotericin and then describe the outcomes for VL immediately after treatment and in the longer term (up to 5 years)	retrospective observational cohort	**159 VL/HIV co-infected pts (both primary & relapse)**	• A total of 36 pts died during follow up, including 6 who died shortly after admission • Death occurs at a median of 11 weeks (IQR 4-51) after starting VL treatment • Among the 153 pts discharged from the hospital, 26 cases of VL relapse were diagnosed during follow up, occurring at a median of 10 month (IQR 7-14) after discharge.

Raman Mahajan, et al., 2015	India	To assess treatment outcomes of coinfected patients up to 18 months following treatment with a combination regimen	Retrospective analysis	102 HIV-VL pts (76% males) were followed a median of 11 months (IQR 4-18)	• Cumulative incidence of all cause mortality & VL relapse at 6, 12, & 18 months was 11.7%, 14%, 16.6% a& 2.5%, 6%, 13% respectively. • Cumulative incidence of poor outcome at 6,12, & 18 months was 13.9%, 18.4% & 27.2% respectively. • Not initiating ART & concurred TB were independent risk factors for mortality, where as no factor were associated with relapse.

Table S2:- Extraction checklist

Papers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Mean/median age	33.5	30	35	32.2	36	33	30	31	32	31	25	41	27	25.7	36.6
Male sex	176	106	46	87	77	29	185	178	31	74	45	11	26	85	132
Mean/median CD4+ cell count/µL	130	155	66	IC	169	33	IC	IC	172	IC	IC	91	IC	IC	122
VL treatment	SSG (356 pts)	AmBisome (195 pts)	AmBisome (55 pts)	1st line pentavalent antimonial (SSG, meglumine antimonate) + AmBisom 92 pt	AmBisome + Milefosine 102 pts	13-Meglumine antimonite 2-pentamiden 9 – AmBisome 2 – AmBlipide complex	IC	IC	IC	IC	IC	AmBisome 46 pts	IC	IC	AmBisome 159 pts
TOC	Was done 4 all pts	Was done 4 all pts	Was done for some	Was done 4 all pts	Was not routinely done	Not reported (NR)	NR	NR	NR	NR	NR	NP	NR	NR	Was not routinely done
Relapse	R	R	R	NR	R	R	NR	NR	NR	NR	NR	R	R	NR	R
Statistical analysis	HR, by Cox model	Multivariable LR	HR, by Cox model	Multivariable LR	HR, by Cox model	K-M and other descriptive analysis was used	Multi variable LR	HR, by Cox model	Multivariable LR	Chi-square test was used	Multivariable LR	Multivariable LR	Multivariable LR	Multivariable LR	HR, by Cox model

Key:-

1. VL- Visceral Leishmaniasis
2. SSG – Sodium stibogluconate
3. TOC - test of cure
4. IC – Incomplete
5. R – reported
6. NR – not reported
7. HR - Hazard proportion
8. LR – logistic regression
9. K-M - Kaplan-Meier