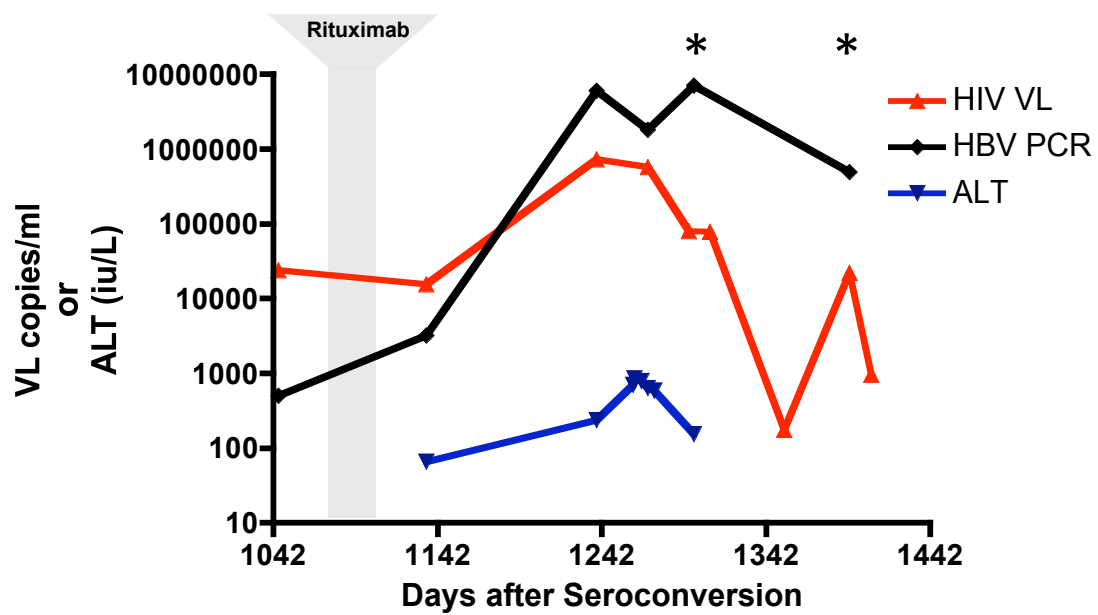**Supplementary Figure S1 Ancestral analysis of emerging strains**
a. The amino acid status change in viral-Env protein (position 339) over time. A time-structured maximum clade-credibility tree, showing reconstruction of the probable ancestral amino acid changes at Env position 339 of the plasma viral samples and proviral samples over time. The amino acid status is reconstructed using parsimony (by MacClade). The maximum clade-credibility tree is constructed using methods described in Fig. 2. b: The amino acid status change in viral Env protein (position 363) over time. Data were calculated and presented as in panel a.

a.

b.

Days post-seroconversion:	882	1239	1295	1308	1700
HBsAb level (IU/ml):	12.43	7.8	<1	2.86	100.76

Supplementary Figure S2 Clinical course of HIV-1 and HBV in relation to Rituximab therapy
a**.** The plasma viral load of HIV-1, HBV and liver function marker ALT are displayed over time (days since seroconversion). The time of Rituximab therapy is indicated. Asterisks indicate HBeAg detection (tested negative at d677). b. Panels below x-axis indicate the change of the serum HBsAb over time.

Supplementary Table S1: Immunoglobulin levels over time

Day	IgG (g/l)	IgA (g/l)	Paraprotein g/l (IgM kappa)	Clinical stage
1028	16.1	0.7	38	Pre rituximab
1094	16	0.8	37	Pre rituximab
1144	15.6	0.7	29	Post rituximab
1204	12	0.5	24	
1254	10.8	0.6	25	
1298	11.6	0.7	26	During acute illness
1449	17.3	0.8	23	On ART post Convalescence