

Table 1 Sociodemographic characteristics and their relationship with different degrees of anemia

Variables	Total Num (%)	No anemia (%)	Mild anemia (%)	Moderate anemia (%)	Severe anemia (%)	X ²	P-value
Age						13.814	0.032
18-39	159(14.06)	92(57.86)	10(6.29)	33(20.76)	24(15.09)		
40-59	501(44.30)	332(66.27)	43(8.58)	80(15.97)	46(9.18)		
>60	471(41.64)	329(69.85)	37(7.86)	71(15.07)	34(7.22)		
Sex						3.535	0.317
Female	311(27.50)	196(63.02)	24(7.72)	60(19.29)	31(9.97)		
Male	820(72.50)	557(67.93)	66(8.05)	124(15.12)	73(8.90)		
Ethnicity						3.341	0.765
Han	525(46.42)	351(66.86)	45(8.57)	80(15.24)	49(9.33)		
Zhuang	533(47.13)	350(65.67)	41(7.69)	95(17.82)	47(8.82)		
Other (minority)	73(6.45)	52(71.23)	4(5.48)	9(12.33)	8(10.96)		
Marital Status						11.824	0.066
Unmarried	228(20.16)	31(57.46)	24(10.53)	45(19.74)	28(12.28)		
Married	667(58.97)	465(69.72)	47(7.05)	100(14.99)	55(8.25)		
Divorce and widowhood	236(20.87)	157(66.53)	19(8.05)	39(16.53)	21(8.90)		
Residence						5.151	0.161
Urban	191(16.89)	128(67.02)	10(5.24)	29(15.18)	24(12.57)		
Rural	940(83.11)	625(66.49)	80(8.51)	155(16.49)	80(8.51)		

Table 2 Clinical characteristics of HIV/AIDS and their relationship with anemia in different degrees

Variables	Total Num (Median,IQR)	No anemia (Median,IQR)	Mild anemia (Median,IQR)	Moderate anemia (Median,IQR)	Severe anemia (Median,IQR)	X ² /H	P-value
CD3 ⁺ T cell count(cell/ul)	607(336,988)	651(383.5,1024)	509(285.75,945.75)	470(268.25,855.25)	491.5(275.25,887.75)	23.482	<0.01
CD4 ⁺ T cell count(%)(cell/ul)						18.432	0.005
≤200	762(67.4)	482(63.3)	65(8.5)	144(18.9)	71(9.3)		
200-350	189(16.7)	134(70.9)	13(6.9)	27(14.3)	15(7.9)		
>350	180(18.9)	137(76.1)	12(6.7)	13(7.2)	18(10.0)		
CD45 ⁺ T cell count(cell/ul)	879(509,1415)	975(570.5,1491.5)	750(459.5,1346.5)	725(409.5,1214.3)	709(399,1352.3)	27.419	<0.01
CD8 ⁺ T cell count(cell/ul)	424(250,688)	457(278,711)	365(223.25,639.25)	351.5(220.25,670.25)	369(181.5,623.25)	16.128	0.001
CD4/CD8	0.2(0.1,0.5)	0.2(0.1,0.6)	0.2(0.1,0.4)	0.2(0.1,0.4)	0.2(0.1,0.5)	11.033	0.012
Neutrophil count	3(1.89,4.54)	3.08(2,4.59)	2.56(1.53,3.66)	2.86(1.79,4.17)	2.94(1.31,5.37)	11.391	0.01
Thyroxine [T4]	5.94(4.82,7.13)	6.06(4.985,7.35)	5.72(4.6,7.19)	5.74(4.41,6.93)	5.52(4.35,6.56)	19.16	<0.01
Triiodothyronine [T3]	0.62(0.4,0.81)	0.64(0.44,0.86)	0.59(0.36,0.73)	0.54(0.3,0.71)	0.51(0.37,0.69)	34.266	<0.01
Free thyroxine [FT4]	0.86(0.76,0.97)	0.88(0.78,0.99)	0.85(0.73,0.96)	0.82(0.71,0.93)	0.81(0.71,0.93)	30.502	<0.01
Free triiodothyronine [FT3]	1.84(1.37,2.35)	1.94(1.43,2.41)	1.78(1.30,2.18)	1.66(1.23,2.01)	1.61 (1.18,2.10)	30.416	<0.01
Lymphocyte count	1.05(0.61,1.54)	1.13(0.65,1.64)	0.93(0.56,1.42)	0.95(0.61,1.445)	0.76(0.49,1.29)	16.953	0.001
Total lymphocytes	2509(2490,2704)	2512(2496,2814)	2516.5(2500,2687.25)	2504.5(2473,2553)	2504(2472,2635.25)	14.875	0.001
Globulin [glob]	36.5(30.7,42.8)	35.9(30.3,42)	38.25(31.37,43.92)	39.5(33.05,46.0)	35.65(29.57,43.92)	21.094	<0.01
Leukocyte [WBC]	4.96(3.55,6.82)	5.16(3.74,7.00)	4.49(3.06,5.95)	4.56(3.22,6.59)	4.36(2.77,8.17)	13.918	0.003

Table 3 Ordinal logistic regression analysis revealed the relationship between the characteristics of patients with HIV/AIDS and different degrees of anemia.

Variables	B	S.E.	Wald	aOR	aOR 95% CI		P-value
					Lower limit	Upper limit	
CD4 ⁺ T cell count(cell/ul)							
CD4 ≤ 200	0			1			
CD4=200-350	0.188	0.339	0.307	0.722	0.514	1.013	0.06
CD4>350	-0.567	0.186	9.253	0.567	0.394	0.817	0.002
CD4/CD8	1.342	0.423	10.049	3.827	1.669	8.785	0.002
Thyroxine [T4]	-0.23	0.087	6.983	0.795	0.670	0.943	0.008
Free thyroxine [FT4]	2.362	0.844	7.836	10.612	2.030	55.479	0.005
Globulin [GLOB]	0.027	0.012	4.965	1.027	1.003	1.052	0.026