

Figure S1 16S rRNA gene analysis indicated lower diversity in patients with IUA and high diversity in infertile females without intrauterine lesion. (A) The rarefaction curves of Simpson index showed that α -diversity in patients with IUA was significantly lower than that in infertile females without intrauterine lesion ($P=0.01$). (B) Patients with IUA had more OTUs than infertile females without intrauterine lesion ($P=0.257$). These above data were based on 0–30,000 sequences per V4 data set.

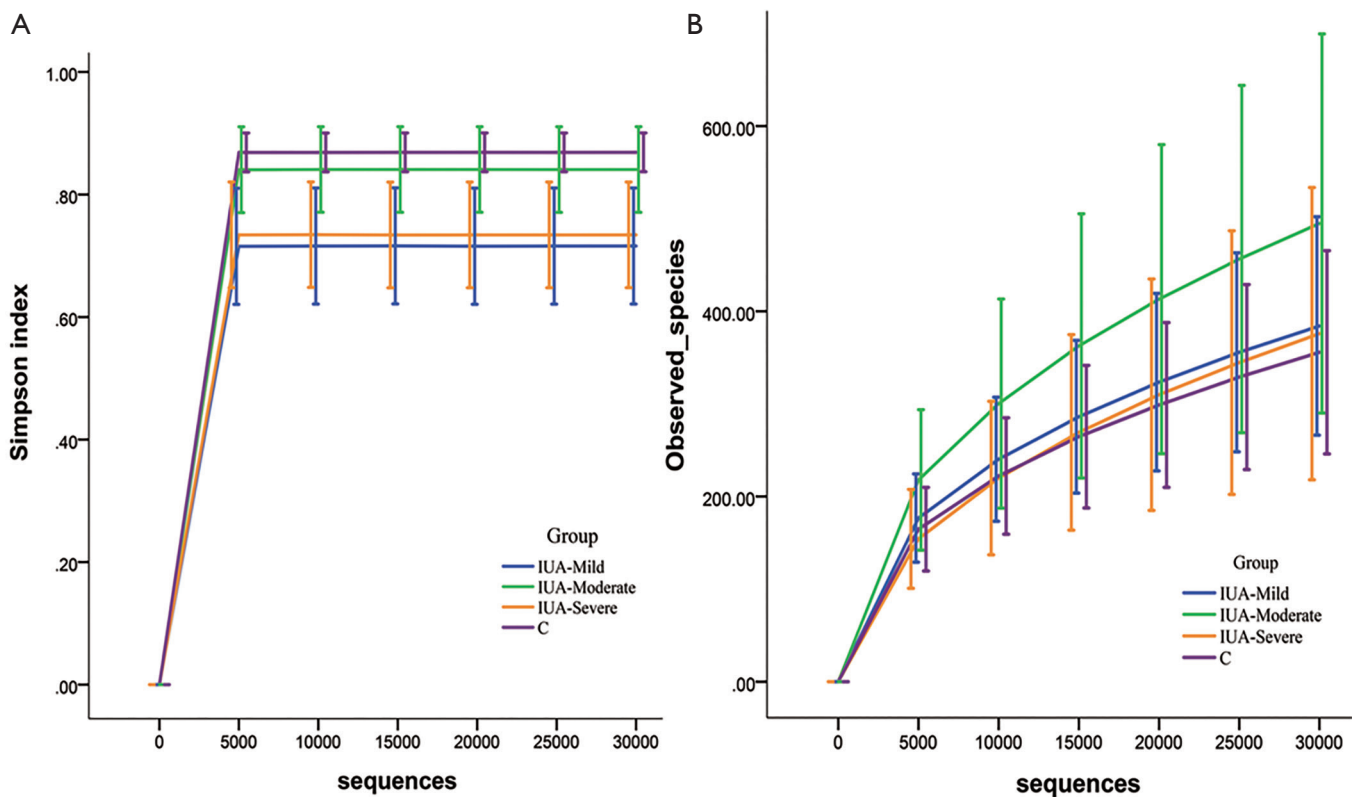


Figure S2 16S rRNA gene analysis indicated different diversities among patients with three IUA subgroups and infertile females without intrauterine lesion. (A) The rarefaction curves of Simpson index indicated significant difference in α -diversity of endometrial bacteria between the different stage of IUA and infertile females without intrauterine lesion ($P=0.011$). Infertile females without intrauterine lesion had the highest α -diversity of endometrial bacteria. Both endometrial α -diversity in the patients with mild IUA and the patients with severe IUA were different from infertile females without intrauterine lesion ($P=0.012$, $P=0.002$). (B) There was no difference between the groups in the observed species ($P=0.491$). These above data were based on 0–30,000 sequences per V4 data set.

Table S1 Number of raw reads, clean reads and effective in 67 samples of four groups by high-throughput sequencing

Sample	Raw Reads	Clean Reads	Clean Tags	effective
IUA-L1	237191	236011	213819	87.22
IUA-L2	283199	281578	267890	92.77
IUA-L3	292366	290654	274910	91.84
IUA-L4	353348	351499	331449	91.21
IUA-L5	248050	247055	230785	88.88
IUA-L6	144998	144332	136710	90.93
IUA-L7	217125	216097	205840	91.57
IUA-L8	188815	188061	177391	91.46
IUA-L9	228607	227467	215525	92.84
IUA-L10	74719	74412	69150	93.77
IUA-L11	100024	99614	92129	93.05
IUA-L12	66488	66277	64298	97.63
IUA-L13	70215	69929	67585	97.34
IUA-L14	71556	71262	69301	97.18
IUA-L15	116241	115842	113009	97.08
IUA-L16	102393	101956	98495	96.95
IUA-L17	110076	109746	106209	97.27
IUA-L18	91679	91356	89067	97.26
IUA-L19	144777	144241	140720	96.99
IUA-L20	80983	80742	77738	97.07
IUA-M1	273518	272098	238360	90.44
IUA-M2	279111	277851	256228	90.28
IUA-M3	423955	421485	398813	97.05
IUA-M4	347448	345274	329815	93.89
IUA-M5	90007	89603	83026	93.08
IUA-M6	116856	116387	105980	91.99
IUA-M7	172898	172145	164778	92.48
IUA-M8	192713	191981	180111	90.26
IUA-M9	108764	108280	100634	89.51
IUA-M10	124279	123808	120679	96.7
IUA-M11	110977	110579	107642	97.01
IUA-M12	138066	137471	133337	97.2
IUA-H1	317647	316049	303506	96.04
IUA-H2	339318	337394	322330	92.58
IUA-H3	278663	277185	261956	93.02
IUA-H4	264109	262650	247099	85.36
IUA-H5	201741	200843	191721	94.78
IUA-H6	76573	76252	72378	92.99
IUA-H7	57090	56869	54727	92.88
IUA-H8	51665	51462	46613	94.71
IUA-H9	143699	143165	139607	97.5
IUA-H10	93160	92825	90194	97.15
IUA-H11	102579	102240	99942	97.78
IUA-H12	96858	96531	94128	97.02
IUA-H13	93553	93240	90821	97.17
IUA-H14	70021	69799	66932	96.69
C1	342848	340861	322066	91.44
C2	246925	245707	232991	87.84
C3	209052	207954	199902	94.34
C4	296978	295557	281284	89.82
C5	163580	162992	154773	91.78
C6	144029	143427	136028	89.8
C7	100138	99748	92847	94.03
C8	58560	58301	54959	91.84
C9	183039	182294	174081	94.13
C10	103415	102964	94463	91.72
C11	48172	47952	39339	94.03
C12	63169	62960	60356	96.77
C13	67383	67144	65398	97.01
C14	72544	72324	69459	96.87
C15	66409	66157	63548	96.9
C16	129163	128678	124356	97.39
C17	115265	114905	111477	97.44
C18	93204	92875	89512	97.51
C19	111262	110869	107899	94.32
C20	157915	157347	152031	97.77
C21	123292	122809	119509	97.13
Total	10684460	10635422	10089655	/
Average	159469.55	158737.64	150591.9	94.12

IUA-L, intrauterine adhesion patients with low-grade; IUA-M, intrauterine adhesion patients with middle-grade; IUA-H, intrauterine adhesion patients with high-grade; C, control group.