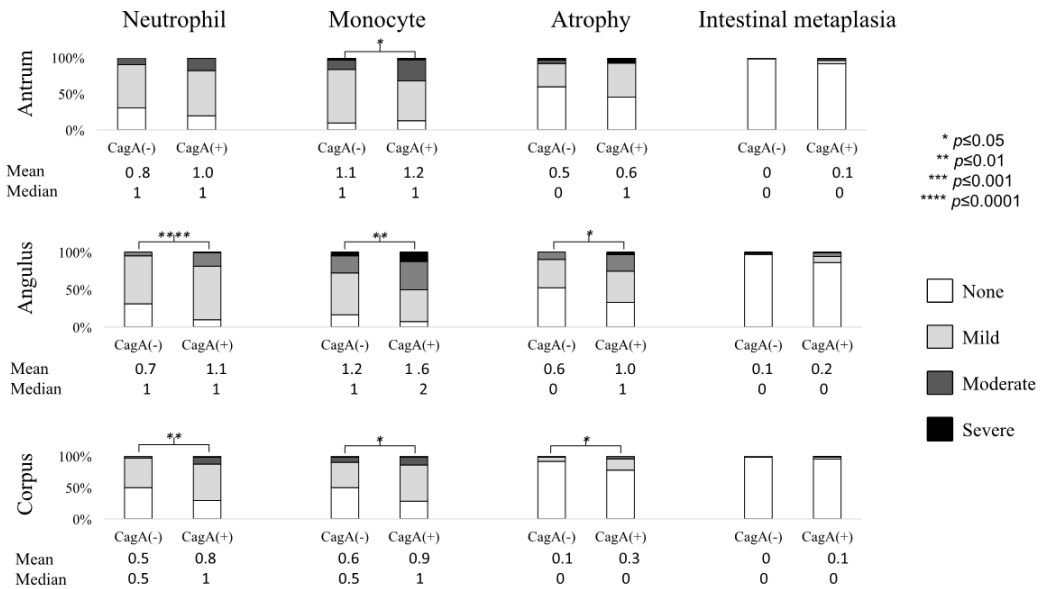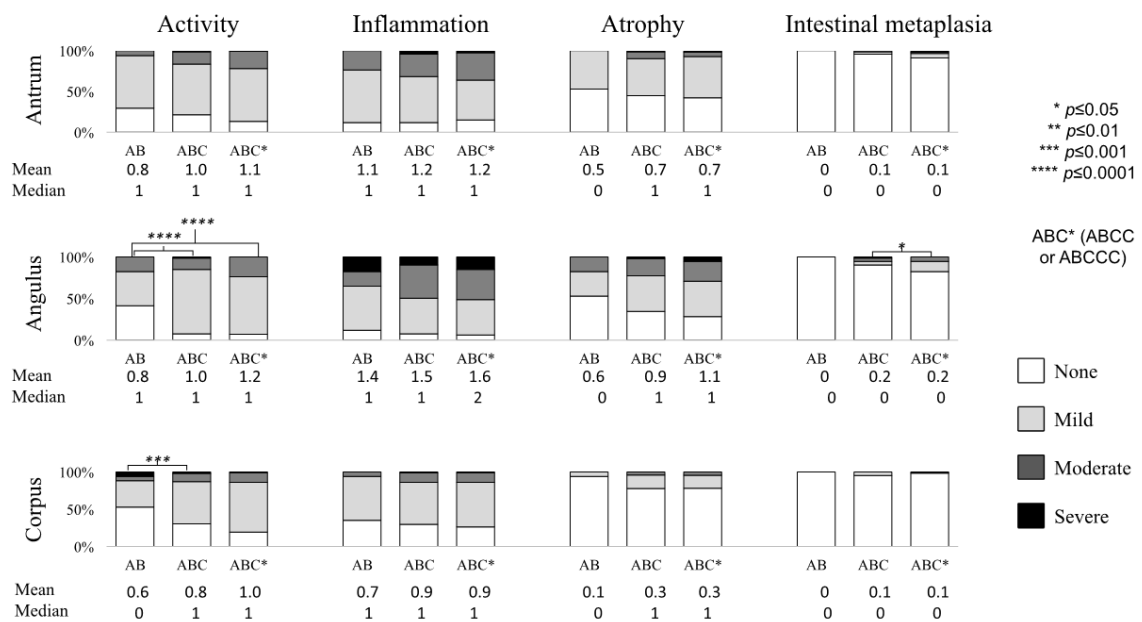# Supplementary Material: Western-Type *Helicobacter pylori* CagA are the Most Frequent Type in Mongolian Patients

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Figure S1. CagA status based on histological status. The distribution and mean values of histological status are shown based on *cagA*-negative and *cagA*-positive cases.

Figure S2. Western-type CagA types based on histological status. The distribution and mean values of histological status are shown based on Western-type CagA types.

Table S1. Patient demography.

Disease status	Mean ages	Ages (Std. Deviation)	Minimum age	Maximum age	Female patients	Male patients
Gastric cancer	59.9	14.4	36	81	5	12
Gastritis	42.3	13.6	16	79	246	95
Ulcers	46.6	9.2	30	58	7	3

Table S2. The CagA and *vacA* genotyping based on geography.

	cagA genotypes		Ulaanbaatar *n* = 117 (%)	Uvs *n* = 21 (%)	Khuvsgul *n* = 31 (%)	Khentii *N* = 89 (%)	Umnugovi *n* = 93 (%)
CagA	**Negative**	**(-)**	24 (20.5)	7 (33.3)	5 (16.1)	16 (18)	10 (10.8)
	Western	**AB**	8 (6.8)	0	3 (9.7)	2 (2.2)	2 (2.2)
		ABB	1 (0.8)	0	0	0	0
		ABBB	0	0	0	0	1 (1.1)
		ABBC	0	0	0	1 (1.1)	1 (1.1)
		ABC	47 (40.5)	5 (23.8)	12 (38.7)	31 (34.8)	48 (51.6)
		ABCC	34 (29)	9 (42.9)	10 (32.3)	35 (39.3)	21 (22.6)
		ABCCC	0 (0)	0	1 (3.2)	2 (2.2)	2 (2.2)
	East-Asian	**ABD**	1 (0.8)	0	0	3 (2.2)	6 (6.5)
		ABBD	1 (0.8)	0	0	0	2 (2.2)
	Hybrid	**ABDC**	1 (0.8)	0	0	0	0
vacA	**S region**	**s1**	96 (82)	13 (65)	24 (82.8)	71 (81.6)	80 (88.9)
		s2	21 (18)	7 (35)	5 (17.2)	16 (18.4)	10 (11.1)
	M region	**m1**	64 (54.7)	11 (55)	21 (72.4)	44 (50.6)	50 (55.6)
		m2	53 (45.3)	9 (45)	8 (27.6)	43 (49.4)	40 (44.4)

Table S3. Multivariate analysis for CagA types based on histological features of gastritis

Histology diagnosis	CagA types	P value	OR	Lower 95% C.I.	Upper 95% C.I.
Neutrophil infiltration	Negative*				
	AB	NS	0.9	0.2	4
	ABC	0.002	5.8	1.9	18
	ABCC	0.003	10.8	2.3	51
	ABCCC	NS	0.9	0.1	9
	ABD	NS	2.1	0.2	18
Monocyte infiltration	Negative*				
	AB	NS	0.5	0.05	6
	ABC	NS	1.0	0.2	5
	ABCC	NS	3.8	0.3	42
	ABCCC	-	-	-	-
	ABD	-	-	-	-
Atrophy	Negative*				
	AB	NS	0.8	0.2	2
	ABC	NS	1.7	0.8	3
	ABCC	0.04	2.2	1.0	5
	ABCCC	NS	0.8	0.1	5
	ABD	NS	2.0	0.4	10
Intestinal metaplasia	Negative*				
	AB	-	-	-	-
	ABC	0.02	4.5	1.3	15
	ABCC	0.002	7.0	2.0	24
	ABCCC	0.03	9.8	1.3	77
	ABD	0.002	14.0	2.7	72

*used as control, NS (not significant)

Table S4. Multivariate analysis for *vacA* genotypes based on histological features of gastritis.

Histology diagnosis	*vacA* genotypes	*p* value	OR	Lower 95% C.I.	Upper 95% C.I.
Neutrophil infiltration	s2/m2*			-	
	s1/m2	0.02	3.7	1.2	11.5
	s1/m1	0.001	5.4	2.0	14.9
Monocyte infiltration	s2/m2*			-	
	s1/m2	NS	0.6	0.1	3.4
	s1/m1	NS	3.4	0.5	24.4
Atrophy	s2/m2*			-	
	s1/m2	NS	1.4	0.7	2.9
	s1/m1	0.04	2.0	1.0	3.8
Intestinal metaplasia	s2/m2*			-	
	s1/m2	0.04	3.9	1.1	14.0
	s1/m1	0.003	6.2	1.9	20.7

*used as control, NS (not significant)