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The Efficacy of Ranikhet Disease Vaccines Produced by Livestock Research Institute of Bangladesh

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Supplementary materials

Supplementary table-1: .Serum antibody titer against NDV antigen in chicken of unvaccinated control group B. Blood was drawn at 01, 20, 36 and 76 days of age of birds. Sera were subjected to determine the HI antibody titer and results are shown in both log_1 and log_2 (Mean ± SD, where SD = Standard deviation, HI = Haemagglutination inhibition).

Serum sample	Age of birds (unvaccinated)											
	Day-01			Day-20			Day-36			Day-76		
	HI titre log_1	HI titre log_2	Mean ±SD	HI titre log_1	HI titre log_2	Mean ±SD	HI titre log_1	HI titre log_2	Mean ±SD	HI titre log_1	HI titre log_2	Mean ±SD
1	64	6	log_1 70.40 ± 35.05	16	4	log_1 17.60 ± 8.76	8	3	log_1 9.60 ± 3.57	8	3	log_1 4.80 ± 1.78
2	64	6		16	4		16	4		4	2	
3	32	5		8	3		8	3		4	2	
4	64	6		32	5		8	3		4	2	
5	128	7	log_2 6.00 ± 0.70	16	4	log_2 4.00 ± 0.70	8	3	log_2 3.20 ± 0.44	4	2	log_2 2.20 ± 0.44

Supplementary table 2. Serum antibody titer against NDV antigens of chickens of vaccinated group A. Serum antibody titer against NDV antigens of chickens of group A, that was raised by BCRDV and RDV vaccination. Chickens were immunized twice with BCRDV through (i/o) route at 2 and 21 days of age and with RDV at 60 days of age through (i/m) route. Blood was drawn at 01, 20, 36, and 76 days of age of birds. Immunized serum HI antibody titeres against NDV antigen were determined by HI test. Results were shown in both log_1 and log_2 (Mean ± SD, where SD = Standard deviation, HI = Haemagglutination inhibition).

Serum sample	**Age of birds (vaccinated)**											
	Day 01 (without primary vaccination)			**Day 20 (after primary vaccination with BCRDV at 2 days of age)**			**Day 36 (after secondary vaccination with BCRDV at 21 days of age)**			**Day 76 (after 3rd time vaccination with RDV at 60 days of age)**		
	HI titre log_1	HI titre log_2	Mean ±SD	HI titre log_1	HI titre log_2	Mean ±SD	HI titre log_1	HI titre log_2	Mean ±SD	HI titre log_1	HI titre log_2	Mean ±SD
1	64	6	log_1 70.40 ± 35.05	128	7	log_1 89.60 ± 35.05	128	7	log_1 153.60 ± 57.24	512	9	log_1 563.20 ± 280.43
2	64	6		128	7		128	7		512	9	
3	32	5		64	6		128	7		512	9	
4	64	6		64	6		128	7		1024	10	
5	128	7	log_2 6.00 ± 0.70	64	6	log_2 6.40 ± 0.54	256	8	log_2 7.20 ± 0.44	256	8	log_2 9.0 ± 0.70

Supplementary table 3 Comparative study of Serum antibody titer of vaccinated and unvaccinated group. A comparative study of Serum antibody titer (log_2 base) against NDV antigens of chickens of vaccinated group A, and chickens of unvaccinated control group-B. Group A were immunized twice with BCRDV through (i/o) route at 2 and 21 days of age and with RDV at 60 days of age through (i/m) route, while group B, were not received any vaccine. Blood was drawn at 01, 20, 36, and 76 days of age of birds from both groups. Serum HI antibody titers against NDV antigen were determined by HI test. Results are shown in log_2 (Mean ± SD, where SD = Standard deviation, HI = Haemagglutination inhibition, ***P*= <0.01 and *** *P* =<0.001).

Bird groups	**Age of birds**			
	Day 01	**Day 20**	**Day 36**	**Day 76**
	Mean ±SD	**Mean ±SD**	**Mean ±SD**	**Mean ±SD**
Group-A, Vaccinated Bird's serum	6.00 ± 0.7071	6.40** ± 0.5477	7.20*** ± 0.4472	9.0*** ± 0.7071
Group-B, Unvaccinated Bird's serum	6.00 ± 0.7071	4.00 ± 0.7071	3.20 ± 0.4472	2.20 ± 0.4472
***P* value**		0.004	0.0001	0.0001