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Main topic : Surveillance and control of emerging diseases

Prevalence of COVID-19 Contamination in Poultry Processing Factories: A Surveillance Study during 2021-2022

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Introduction: The COVID-19 pandemic caused by SARS-CoV-2 has raised concerns about the transmission of the virus through food and food contact surfaces. Poultry processing factories are potential hotspots for virus transmission due to the high density of workers and the nature of the work involved. This study aimed to investigate the prevalence of COVID-19 contamination in environmental surfaces and chicken products in poultry processing factories.

Methods: A total of 17,407 samples, including surface swabs, water samples, and food products, were collected from two chicken slaughterhouses, one sausage production factory, and one cooked chicken product factory during 2021-2022. Real-time PCR was used for specific detection of RNA and a positive control for COVID-19.

Results: The results showed a low positivity rate of 0.13% (11/8,456) in the chicken slaughterhouses in 2021, and a slightly higher positivity rate of 0.21% (19/8,951) in the chicken slaughterhouses, sausage factory, and cooked product factory in 2022. Positive samples were found on surface swabs in both years, but no positive samples were found in chicken products.

Conclusion: This study highlights the importance of monitoring environmental surfaces for COVID-19 contamination in the food production process to ensure the safety of employees and the quality of food. The findings can help guide food safety policies and procedures in the poultry processing industry during the ongoing pandemic.