INTRODUCTION

One of the primary objectives of African Swine Fever (ASF) research, is to produce an effective vaccine. The epidemiology of this infection is not well known. However, one has been detected and controlling strategies for control have been successful in some areas. Immunological aspects of ASF infection, both in the domestic swine herd and in the natural environment, have been studied. The objective of the present study was to test the effectiveness of the vaccine on pigs infected with different ASF isolates, in terms of the humoral and cell-mediated immune responses.

MATERIALS AND METHODS

Adult pigs: A total of 25 adult pigs weighing between 20 to 40 kg were infected with ASF virus and different isolates.

Baby pigs: In the same way, 25 baby pigs were infected with the same virus.

Clinical signs: Five adult pigs were kept as control animals.

Blood collection: Blood was collected from the pigs infected with each of the isolates at 8 days post-infection (DPI), and from the control pigs at 8 DPI. The sera were stored at -20°C for further analysis.

Serologic tests: Serologic tests were performed using commercial enzyme-linked immunosorbent assay (ELISA) kits for the detection of ASF virus in the sera of the pigs. The results were compared with the control pigs.

Humoral and cell-mediated immune responses: The humoral and cell-mediated immune responses were determined by measuring the levels of antibodies and T-lymphocytes in the sera of the pigs using ELISA and flow cytometry, respectively.

RESULTS

To determine the degree of humoral and cell-mediated response, adult pigs were inoculated with ASF virus. The seroconversion rate was assessed by measuring the antibody levels. The humoral response was assessed by measuring the levels of different antibodies, such as IgM, IgG, and IgA.

DISCUSSION

The results of this study showed that pigs infected with different isolates had an initial increase in antibody levels, followed by a decrease. This pattern was observed in pigs infected with all isolates, regardless of the isolate used. The humoral response was more pronounced in pigs infected with the wild-type virus compared to those infected with the attenuated virus. The cell-mediated response was assessed by measuring the levels of T-lymphocytes. The results showed that the cell-mediated response was more pronounced in pigs infected with the wild-type virus compared to those infected with the attenuated virus. The results also showed that the cell-mediated response was more pronounced in pigs infected with the wild-type virus compared to those infected with the attenuated virus. The results also showed that the cell-mediated response was more pronounced in pigs infected with the wild-type virus compared to those infected with the attenuated virus. The results also showed that the cell-mediated response was more pronounced in pigs infected with the wild-type virus compared to those infected with the attenuated virus.