After natural birth, the newborn piglets have a large and mixed population established in the intestinal tract. These microbes are responsible for the pathogenesis of E. coli diarrhea. In the present study, we investigated the role of E. coli enterotoxins in the pathogenesis of E. coli diarrhea. The study was conducted in pigs, where E. coli enterotoxin was shown to be responsible for the diarrhea.

Material and Methods

Material was collected from 36 large white pigs between 20-40 days of age. Animals were fed a feed mixture containing 15% milk and 85% feed. Two segments, mid-jejunum and ileum, were collected and processed. The segments were homogenized and the homogenate was centrifuged at 10,000 rpm for 30 min. The supernatant was used for immunological assays.

Results

In the study, the levels of E. coli enterotoxin were measured in the ileum and jejunum segments. The highest levels were observed in the ileum, followed by the jejunum. The enterotoxin levels were significantly higher in pigs fed a diet containing 15% milk and 85% feed. The results were compared to control pigs fed a diet containing 100% feed.

Conclusion

The study suggests that the enterotoxin produced by E. coli plays a significant role in the pathogenesis of E. coli diarrhea. The results indicate that the enterotoxin levels are higher in pigs fed a diet containing 15% milk and 85% feed, compared to control pigs fed a diet containing 100% feed.