INTRODUCTION

Porcine epidemic diarrhea (PED) is a non zoonotic viral disease of pigs, caused by a coronavirus and characterized by watery diarrhea and weight loss.

The disease affects pigs of all ages, but is most severe in newborn piglets, with morbidity and mortality up to 100%.

PED was described in the 70’s in Europe and then outbreaks spread to all countries and became a big problem. In the 80’s PED spread to the Asian countries where also caused great economic losses. The American continent was PED free until May 2013.

OBJECTIVES

1- Make a historical review of the pathogen, i.e., what relevance has been over time and what role he played until today.
2- Assess their progress once entered a continent, in this case the US.

LITERATURE REVIEW

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<th>Clinical signs</th>
<th>Treatment</th>
<th>Mortality treatment</th>
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<td>TGEV</td>
<td>Watery diarrhea, Vomiting, Dehydration</td>
<td>Rehydration, Close immunity with PRRV</td>
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<td>PRCV</td>
<td>Asymptomatic or associated with porcine respiratory complex</td>
<td>Antibiotics to control secondary bacterial infections</td>
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<tr>
<td>PEDV</td>
<td>Watery diarrhea, Vomiting, Dehydration</td>
<td>Rehydration, Use of infectious material in pregnant sows and assure colostral immunity in piglets</td>
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<tr>
<td>PHEV</td>
<td>Vomiting, Lachexia, Encephalomyelitis</td>
<td>Rehydration, Colosial immunity, Presence of active immunity, Suppurative infection</td>
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- At present, PEDV is the coronavirus that causes most problems
  - First description in Europe in 1971, then in the 80s spread to Asian countries, and in 2013 appeared in US.
  - Very difficult to distinguish TGE and PED by clinical signs
  - Unknown gateway PEDV in the US.
  - Large spread once PEDV enters a new country
  - There is no treatment for PED

- The European PEDV strain CV777 was full-length sequenced in 2001.
  - 3 PEDV strains from the US were sequenced to compare them to the Asian ones.
  - The conclusion was that American strains are closely related with the Asian suggesting that the outbreak in US could comes from China (Bowman et al., 2014).

CONCLUSIONS

- PED appeared first time in the US in 2013 and sequencing of 3 US strains suggests that are from Asian origin.
  - Once the first cases appear is very difficult, if not impossible, to remove PEDV. The best option is to coexist with it minimizing its impact.
  - The best solution when an outbreak appears on the farm is infect all pregnant sows with infectious fecal material to develop strong lactogenic immunity.
  - Farm immunity after an outbreak usually lasts 6 months.

REFERENCES