

## Chronic testicular infection during a BVD outbreak in a suckler herd

**Joan Pineda Bosh**

Veterinarian Joan Pineda Bosch, DVM & Carmen Carmena García, DVM

**“The bull GASSOL was infected probably 2014 (during the clinical BVD outbreak in the herd) and was excreting the virus during two full years, as demonstrated by the two semen tests performed (April-2015 and March 2016)”**

### Background

It is a closed farm with 180 breeding “mamma” beef-cows + 30 replacement heifers + 4 Limousine breeding bulls, raised on farm, located in Valladolid, Spain

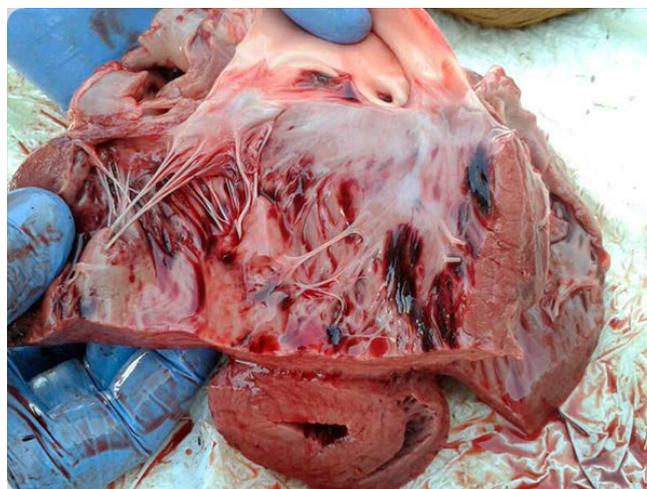
Farm semi-extensively managed, with periods on pastures (but pastures not shared with other farmers). Natural breeding. Calving season indoors.



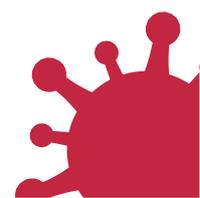
Historically good managed herd, with very high fertility results in average (circa 95% of annual calving rate 2013). No routine viral vaccinations, just anticlostridial vaccines and neonatal diarrhea vaccine (on the mothers).

### Preliminary Indication

June 2014 higher rates in perinatal mortality was observed. A necropsy was performed (Images 1, 2, 3, 4 and 5), on a 20 days old calf.



Bloody diarrhea was observed by a second calf that resulted positive to E.coli, Cyrtosporidium and BVD-Ag



## Further Development

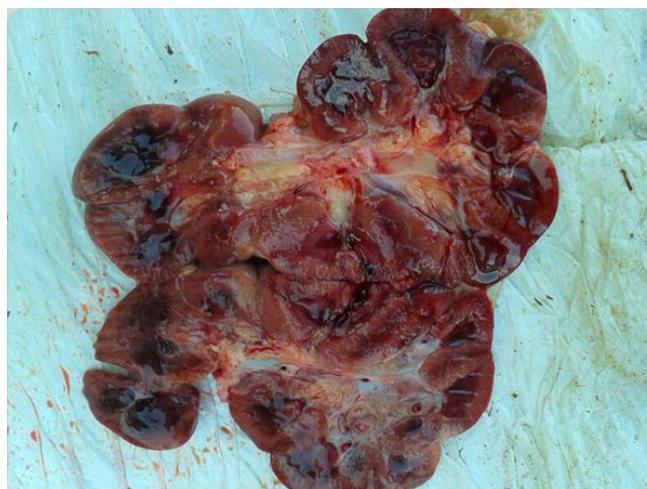
In the first week of January 2015, a new outbreak of neonatal mortality was detected, and more calves necropsied and confirmed positive for BVD. Several cows aborted, with pregnancy between 2 and 5 months.



The herd was screened for BVD-antibodies and the 82 antibody-negative animals analyzed for Ag. None of them was positive for BVD-Ag. Among these samples there were three breeding males, one of them coming from the antibody-positive bull with number 1173/1153, called GASSOL.

## Treatment Applied

March 2015 an additional cow aborted a congenitally misbuilt fetus (5 months of pregnancy) and a general vaccination was conducted, every four months with an inactivated vaccine, and all born new calves tested for BVD-Ag and all PIs found culled (a total of 18 PIs was removed.).



## Result

April 2015 semen samples were taken from all the bulls. All of them were negative to BVD-Ag. In the case of the bull GASSOL semen was positive for BVD-Ag, the bull negative for BVD-Ag and positive for BVD-Ab. These analyses were repeated on month later and the same result was confirmed.

March 2016 the bull remained in the herd (against the advice of the veterinarian consultant), and remained positive for BVD-Ag in semen for months.

The suspected source of introducing the outbreak was through colostrum of an afterwards BVD-positive confirmed cow from another herd. But this was not confirmed.

## Questions

Q1: What were the results of the bull chronically BVD-infected?

1. Semen BVD-Ag negative; Serum BVD-Ag positive and Serum BVD-Ab-negative.
2. Semen BVD-Ag positive; Serum BVD-Ag negative and Serum BVD-Ab-positive.
3. Semen BVD-Ag positive; Serum BVD-Ag positive and Serum BVD-Ab-negative.

Q2: Is it advised to keep a BVD chronically infected bull?

1. No, it is not. The bull can spread BVD to the herd, and originate the birth of PI animals.
2. Yes, it is. when the bull has been properly vaccinated.
3. Yes, it is. The bull cannot spread BVD to the herd, and it does not induce any problem with fertility.