SYSTEMIC INFLAMMATORY RESPONSE SYNDROME (SIRS) IN FOALS

Final degree project
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Objetives
Currently diagnosis of SIRS in foals requires:

- A more accurate definition of the condition.
- The identification of new diagnostic tolls to reduce the diagnosing time.

Introduction
The systemic inflammatory response syndrome (SIRS) is the body response to injury or insult, infectious or non-infectious condition characterized by a hyperinflammatory state.

SIRS is an extremely important cause of morbidity and mortality in foals. Where over 60% of all the foals admitted to hospital met the study criteria for SIRS.

Current SIRS diagnose
- Physical and haematological parameters

- Biochemical parameters

Seeking for new ways of diagnosing SIRS: Serum Biomarkers

Parameters were determined based on comparative determinations of sick foals values relative to those of healthy individuals.

Future perspectives
Foals inflammation response is extremely complex and there is no prove of the correlation between most biochemical markers and SIRS.

Recently, some studies have been performed in both human and equine to evaluate procalcitonin (PCT) and myeloperoxidase (MPO) as inflammatory biomarkers.

The so called omics approaches that simultaneously compares the levels of all detected biomolecules could be the way forward to the discover of new SIRS biomarkers.