

# PLEOMORPHIC COLONIES OF *Clostridium perfringens* ISOLATED FROM INTESTINAL CONTENT FROM HEALTHY GOATS

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## INTRODUCCIÓN

*Clostridium perfringens* is a ubiquitous worldwide distributed bacterium. It can be isolate from soil, water, gastrointestinal tract of healthy animals and humans, and from clinical specimens. Under certain circumstances it can produce a variety of diseases in goats and sheep such as enterotoxaemia and hemorrhagic enteritis due to the effect of different toxins that this bacterium can produce. The pleomorphic characteristics of *C. perfringens* colonies have already been described. However, colony description and photos are not always available.

## OBJETIVO

The aim of the present work is to report pleomorphic colonies of *C. perfringens* isolated from intestinal contents of healthy goats.

## MATERIALES & MÉTODOS

Intestinal content samples were collected from ten 2-month old goats at the local slaughterhouse. Samples were collected into sterile tubes and processed within the same day. For bacteriological analysis, 100 µl of intestinal content were seeded onto blood agar neomycin plates and were anaerobically incubated for 24 h at 37 °C. After incubation, colonies morphologically compatible with *C. perfringens* (medium-sized and with a characteristic double-zone hemolysis) were identified by Gram staining and biochemical tests (catalase, lecithinase, reverse CAMP and aerotolerance). Once isolated and identified, purified colonies were sub-cultured onto blood agar plates.

## RESULTADOS

Table 1: Detection and quantification of *Clostridium perfringens* by bacteriology in intestinal contents from healthy goats.

Sample N°	CFU/ml of intestinal content
1	≥ 250
2	110
3	≥ 250
4	30
5	20
6	≥ 250
7	≥ 250
8	≥ 250
9	≥ 250
10	80

Fig. 1: Pleomorphic colonies of *C. perfringens*. 1a) Colony typically described as *C. perfringens*: medium-sized, raised, bright, circular shaped, entire edged, with a characteristic double-zone hemolysis and 1b) Flat colony: bigger, flat, wavy edged with the double-zone hemolysis not so apparent.

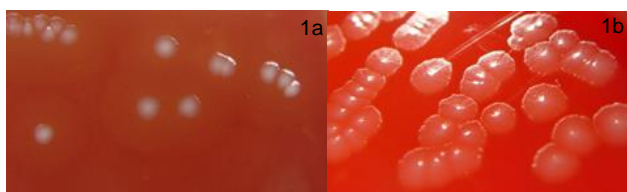


Fig. 2: *C. perfringens* isolates showed mixed morphologies after sub-cultivation although they derived from one colony.



## CONCLUSIONES

*C. perfringens* was isolated from all samples and different colony morphologies were identified. The description of pleomorphic colonies of *C. perfringens* is useful since in the literature there is a lack of information on its existence in the intestinal content of healthy goats. In addition, these results demonstrate that commonly healthy goats have a high isolation rate of this bacterium. This information is practical for the isolation and identification of *C. perfringens* in samples for diagnosis or research purposes.