Outline

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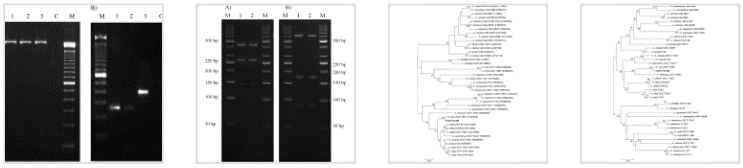
Figures (4)



Tables (1)

Table 1

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Short communication

Characterization of *Arcobacter suis* isolated from water buffalo (*Bubalus bubalis*) milk

Federica Giacometti [a], Nuria Salas-Massó [b], Andrea Serraino [a], Maria José Figueras [b]

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Highlights

- *Arcobacter suis* strain FG 206 has been isolated from water buffalo milk.
- Phenotypical characterization, 16S rRNA-RFLP, 16S rRNA were performed.
- A 5 additional genes analysis was performed.
- Strain FG 206 is closely related to the *Arcobacter suis* type strain F41^T.
- The species *A. suis* may not be confined to a single type of food.

Abstract

During a survey in a dairy plant in Italy, the second strain (strain FG 206) of *Arcobacter suis* described in the literature was isolated from raw water buffalo milk. The objective of this study was to confirm the species identification, better define the species by comparing its characteristics with those of the reference strain (F41^T = CECT 7833^T = LMG 26152^T) and to investigate its potential clinical relevance by detecting the virulence gene pattern of the new strain. Phenotypical characterization and 16S rRNA-RFLP gave a complete overlap of results for the two strains. As expected, an RFLP pattern common to *A. suis* and *Arcobacter defluvii* was obtained by *MseI* endonuclease digestion, and a pattern specific for *A. suis* was obtained by *BfaI* endonuclease digestion. 16S rRNA sequencing and multilocus phylogenetic analysis (MLPA) showed a robust relatedness of strain FG 206 to the *A. suis* type strain F41^T. The recovery of strain FG 206 from a dairy plant shows that this species of *Arcobacter* is present in the food chain. Like the type strain recovered from pig meat, the species *A. suis* may not be confined to a single type of food.

Keywords

Arcobacter suis; Milk; Virulence; Typing