

A. I. Adetosoye<sup>1</sup> | **Campylobacter enteritis in animals in**  
 M. O. A. Adeniran<sup>2</sup> | **Ile-Ife, Oyo State, Nigeria**

ADETOSOYE (A. I.), ADENIRAN (M. O. A.). *Campylobacter enteritis* chez des animaux d'Ile-Ife, Etat d'Oyo, Nigeria. *Rev. Elev. Méd. vét. Pays trop.*, 1987, 40 (1) : 39-40.

Quarante trois isolats de *Campylobacter* ont été rassemblés à partir de 266 échantillons fécaux diarrhéiques récoltés sur des animaux de Ile-Ife, Etat d'Oyo, Nigeria. On a répertorié 27 isolats de *C. jejuni* biotype I, 3 de *C. jejuni* biotype II, 7 de *C. coli* et 3 de *C. faecalis*, alors qu'un isolat restait inclassé. Les isolats étaient résistants à 3 antibiotiques : lincomycine, céphaloridine et triple sulpha. *Mots clés* : Animal domestique - *Campylobacter enteritis* - Isolement - Nigeria.

All faecal samples were seeded on Butzler's Selective Medium (Oxoid) with Oxoid enrichment supplement and 7 p. 100 sheep blood. The plates were incubated at 42 °C for 48 hours in a gas pack envelope. Colonies resembling *Campylobacter* were identified biochemically (4, 6, 8, 9, 10, 11). Antibiotic sensitivity testing was performed (1) using multodisks (Oxoid) consisting of nalidixic acid (30 µg), sulfa methoxazole-trimethoprim sulphate (SXT 25 µg), erythromycin (E 10 µg), oxytetracycline (OT 30 µg), gentamycin (CN 10 µg), metronidazole (DA 5 µg), ampicillin (PN 10 µg), furazolidone (FR 10 µg), triple sulpha (S<sub>3</sub> 300 µg) and cephaloridine (CR 25 µg). *C. jejuni* NCTC 11168 was used as control strain.

## MATERIALS AND METHODS

*Campylobacter jejuni*/*C. coli* has been associated with gastro-enteritis in animals (2, 7, 8). In order to document the incidence of *Campylobacter enteritis* in livestock in Ile-Ife, Oyo State, Nigeria, faecal samples were collected from diarrhoeic animals including 50 piglets, 30 calves, 10 kids, 10 lambs, 10 puppies, 10 ducks and 146 chickens located in different farms in Ile-Ife.

## RESULTS

Table I shows the biochemical characteristics of the 43 *Campylobacter* isolates recovered from the diarrhoeic faecal samples. They were resistant to cephaloridine, lincomycin and triple sulpha.

TABLE I Biochemical characteristics and biotypes of campylobacter isolates.

Oxidase	Catalase	Growth at			30 µg N.A.	H <sub>2</sub> S	1 p 100 rapid sodium hippurate	2-3-5 TTC test	1 p 100 selenite reduction test	Growth in 1 p. 100 glycine	Growth in sodium chloride agar		Growth in brilliant green agar		6 p 100 Glucose	Nitrate	Species & biotypes	No. of strains that gave these reactions	Sources
		25 °C	37 °C	42 °C							1.5 p. 100	3.5 p. 100	1	1					
++	++	-	+	+	S		+	+	+	Reduced	++	-	-	-	+	++	<i>C. jejuni</i> biotype 1	27	Poultry (20) Piglet (3) Kid (3) Cattle (2)
++	+	-	+	+	S	+	++	++	+	Reduced	++	+	-	-	+	++	<i>C. jejuni</i> biotype 2	3	Poultry (1) Puppy (1) Cattle (1)
++	+	-	+	+	S	+	-	+	+	Reduced	++	+	-	-	+	+	<i>C. coli</i>	9	Piglet (7) Kid (1) Poultry (1)
+	++	-	+	+	R	+	-	-	+	+	++	+	+	+	+	+	<i>C. faecalis</i>	3	Piglet (2) Lamb (1)
+	+	+	+	+	S	-	-	+	+	+	+	+	+	+	+	+	Uncharacterized	1	Poultry (1)

1. Department of Veterinary Microbiology and Parasitology, University of Ibadan, Ibadan, Nigeria.

2. Department of Medical Microbiology, University of Ife, Ile-Ife, Nigeria.

++ = Very strong positive (100 p. 100)  
 + = Positive (99 p. 100)  
 - = Negative (98 p. 100)  
 R = Resistant  
 S = Sensitive  
 NA = Nalidixic

## DISCUSSION

This study pointed out that *Campylobacter* should be considered as one of the pathogens associated with gastro-enteritis in livestock in Nigeria. The isolation rate of *C. jejuni* from poultry (15.4 p. 100), cattle (10 p. 100), sheep (20 p. 100) agreed favourably with

those obtained elsewhere (7, 8), however it differed from those of cattle (40 p. 100) and sheep (85 p. 100) (5). That the isolates were resistant to cephaloridine, triple sulpha and methronidazole supported the finding of other workers (3). Based on the results of this investigation, it is suggested through laboratory investigation should be carried in our laboratories in order to provide efficient diagnostic services. Work is in progress on the enterotoxigenicity and serology of the *Campylobacter* isolates.

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Forty three *Campylobacter* isolates were recovered from 266 diarrhoeic faecal samples collected from diarrhoeic animals in Ile-Ife, Oyo State, Nigeria. Twenty seven, 3, 7, and 3 isolates were classified as *C. jejuni* biotype I, *C. jejuni* biotype II, *C. coli*, and *C. faecalis* respectively, while one isolate was unclassified. The isolates were resistant to 3 antibiotics including lincomycin, cephaloridine and triple sulpha. *Key words*: Domestic animal - *Campylobacter enteritis* - Isolate - Nigeria.

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Se recogieron 43 aislamientos de *Campylobacter* a partir de 266 muestras de las heces diarreicas de animales de Ile-Ife, en el estado de Oyo, Nigeria. Se evidenciaron 27 aislamientos de *C. jejuni* biotipo I, 3 de *C. jejuni* biotipo II, 7 de *C. coli* y 3 de *C. faecalis* mientras que un aislamiento quedaba no clasificado. Los aislamientos eran resistentes a 3 antibióticos: lincomicina, cefaloridina y triple sulfa. *Palabras claves*: Animal doméstico - *Campylobacter enteritis* - Aislamiento - Nigeria.

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