A. Ü. Vet. Fak. Derg.
31 (1) : 28-30, 1984

CAMPYLOBACTER JEJUNI ENTERITIS IN A CAT

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Bir Kedide Campylobacter jejuni Enteritisi

Özet: *Sürgünlü bir kedinin rektum içereğinden saf olarak Campylobacter jejuni izole edildi. Aniden şiddetli ve mukoid bir ishal gelişen kedi, kısa zamanda zayıflayıp dehidre duruma girdi. İzole edilen mikroorganizma, biyokimyasal testler ve tolerans testleri ile Campylobacter jejuni olarak ayrıldı ve farklı iki sistem ile biyotiplendirildi. Sürgünlü kedinin rektum içeriğinden saf olarak Campylobacter jejuni'nin üretilmesi ve bilinen diğer enterit etkenleri yönünden elde edilen olumsuz bulgular, bu kedide ishal nedeninin Campylobacter jejuni olduğunu gösterdi.*

Summary: *Campylobacter jejuni was isolated in pure culture from the rectal content of a diarrhoeic cat. The cat had suddenly developed a moderate mucoid diarrhoea, and rapidly became listless and anorexic. The isolated organism was identified by biochemical and tolerance tests. Isolated Campylobacter jejuni strain was also biotyped by two different biotyping systems. Isolation of Campylobacter jejuni in pure culture and negative findings for other known causes of feline enteritis strongly suggested that Campylobacter jejuni was the cause of the diarrhoea in this cat.*

Campylobacter jejuni is frequently encountered as either a commensal or pathogen in the intestinal tract of many mammalian and avian species (4, 6). In medial microbiology, these bacteria have attracted much interest during the past decade due to an increasing frequency of isolation from human clinical specimens (12). *C.jejuni* is now recognized as an important causal agent of human enteritis (2). There are several reports that *C.jejuni* may cause diarrhoea in animals as well as humans (1, 5, 9). The organism has been isolated from dogs and cats with diarrhoea (3, 8). Several articles have shown

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that pets may also be responsible for the transfer of this organism to human by contact (3, 6, 8). This case report describes the isolation of *C.jejuni* from a diarrhoeic cat in Turkey.

A four-month old female cat was brought to the clinic in a moribund stage. The cat had suddenly developed a moderate mucoid diarrhoea with some tenesmus and vomitus, and rapidly became listless and anorexic. Rectal samples from this cat were cultured for *C.jejuni* and other known enteric pathogens such as E.coli, Salmonella etc. The diarrhoeic cat died one day after the collection of sample.

Rectal swab was seeded directly onto Campylobacter Selective Medium (10). This medim was incubated at 42°C in a microaerobic atmosphere by using the Gas-Pak System (Oxoid) without a catalyst for 72 hours. After incubation period, pure camplobacter colonies with typical morphology and grey-pink colour were observed on this medium. Other cultures were negative for other known pathogens.

The criteria used to identify *C.jejuni* were Gram reaction, microscopic morphology, motility, microaerophilic requirements, positive catalase and oxidase tests, growth at 42°C but not at 25°C and sensitivity to nalidixic acid. The organism identified as *C.jejuni* hydrolyzed DNA and sodium hippurate, showed alkaline phospahatase activity, grew on charcoal yeast extract agar (CYEA), not produced hydrogen sulphure in iron medium and produced in conventional medium without cysteine hydrochloride.

The *C.jejuni* isolated in this case was a strain of Biotype-1 which are the most common cause of enteritis in humans (7). According to Skirrow's biotyping system, isolated strain was placed in Biotype-1 which had the most typical characteristics of *C.jejuni* (11).

The isolation of *C.jejuni* in pure culture from the rectal content of a diarrhoeic cat and negative findings for other known causes of feline enteritis strongly suggested that *C.jejuni* was the cause of dirrhoea in this cat. This case indicates that campylobacteriosis should be considered in the differential diagnosis of feline diarrhoea. The source of *C.jejuni* and the route of infection were not determined in this case.

Literatür

1- **Al-Mashat, R.R.and Taylor, D.J.** (1980): *Production of diarrhoea and dysentery in experimental calves by feeding pure cultures of Campylobacter fetus subspecies jejuni.* Vet. Rec., 107: 459–464.

2- **Blaser, M.J.and Reller, L.B.** (1981): *Campylobacter enteritis.* N.Eng.J.Med., 305: 1444–1452.

3- **Bruce, D., Zochowski, W. and Fleming, G.A.** (1980): *Campylobacter infections in cats and dogs.* Vet.Rec., 107: 200–201.

4- **Diker, S. ve İstanbulluoğlu, E.** (1983): *Sağlıklı ve sürgünlü hayvanlardan Campylobacter fetus subsp. jejuni izolasyonu üzerinde çalışmalar.* A.Ü.Vet.Fak.Derg., 30: 28–34.

5- **Firehammer, B.D. and Myers, L.L.** (1981): *Campylobacter fetus subsp jejuni : Its possible significance in enteric diseases of calves and lambs.* Amer. J.Vet.Res., 42: 918–922.

6- **Garcia, M.M., Eaglesome, M.D. and Rigby, C.** (1983): *Campylobacters important in veterinary medicine.* Vet.Bull., 57: 793–818.

7- **Hebert, G.A., Hollis, D.G., et al:** (1982): 30 *years of campylobacters : biochemical characteristics and a biotyping proposal for Campylobacter jejuni.* J.Clin.Microbiol., 15: 1065–1073.

8- **McOrist, S. and Browning, J.W.** (1982): *Carriage of Campylobacter jejuni in healthy and diarrhoeic dogs and cats.* Aust. Vet.J., 58: 33–34.

9- **Prescott, J.F.and Bruin-Mosch, C.W.** (1981): *Carriage of Campylobacter jejuni in healthy and diarrhoeic animals.* Amer.J.Vet.Res., 42: 164–165.

10- **Skirrow, M.B.** (1977): *Campylobacter enteritis-'a new disease'.* Br.Med.J., ii: 9–11.

11- **Skirrow, M.B. and Benjamin, J.** (1980): *Differentiation of enteropathogenic campylobacter.* J.Clin.Pathol., 33: 1122.

12- **Skirrow, M.B.** (1982): *Campylobacter enteritis-the first five years.* J. Hyg., 89: 175–184.

Yazı = 13.12.1983 *günü alınmıştır.*