

An important agent in gastroenteritis: *Campylobacter*

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Campylobacter infections are common in both developed and developing countries. The reported incidence of culture confirmed infections shows variability among countries due to culturing procedures. (1). Here we report laboratory-based surveillance data collected between 2013 and 2015 in Yeditepe University Hospital Microbiology Laboratory. Among 2807 feces cultures, *Salmonella* spp. (n=135), *Campylobacter* spp. (n=118), *Aeromonas* spp. (n=6) and *Shigella* spp. (n=3), isolates were detected. Out of 118 *Campylobacter* spp. isolates, the distribution was as follows: *C. jejuni* (n=101), *C. upsaliensis* (n=8), *C. coli* (n=6) and other species (n=3).

The fecal samples were cultured in *Campylobacter*-BAP medium (Salubris, Turkey) and incubated under microaerophilic conditions (CampyGen, Oxoid, UK) at 42°C for 48 hours. Suspected colonies were examined by Gram stain and evaluated for oxidase and catalase positivity; and then were first confirmed by *Campylobacter* latex agglutination test (Dryspot, Oxoid, UK).

They were identified by API CAMPY biochemical identification system (BioMérieux, France). Antimicrobial susceptibility of isolates against erythromycin was also tested with API CAMPY system (BioMérieux, France); ciprofloxacin and gentamicin susceptibilities were tested by E-test (bioMérieux, France).

The distribution of isolates, demographic information and seasonal epidemiology in patients with

Campylobacter positive cultures are shown. It seems there is no definite season for campylobacteriosis. We mostly isolate from the pediatric patients. (Table 1, Figure 1) Beyond detecting difficulties by culture, antibiotic resistance becomes a problem. In the EFSA/ECDC report 2013, the highest frequency of resistance was observed for nalidixic acid (47.8%) and ciprofloxacin (44.4%) followed by ampicillin (35.3%) and tetracycline (30.5%); low resistance levels were observed to erythromycin (3.5%) and gentamicin (0.4%). According to FDA/CDC/UDSA Report 2013 resistance to tetracycline was most common (45.9%), followed by ciprofloxacin (23.5% in *C. jejuni* and 35.8% in *C. coli*). Macrolide resistance was observed in 1.7%-2.7% (2).

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During the study period, our resistance rates were detected as 13% for erythromycin, 11% for ciprofloxacin. It seems a slight increase in erythromycin resistance in our strains comparing to 2009-2012 rates (from 7% to 13%) (3). No resistance was seen in gentamicin. Fecal culture procedures should be applied in our routine laboratories to see the surveillance of Campylobacteriosis and find our national rate in resistance to antibiotics.

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