Otitis Media Caused by Beta-Lactamase-Producing
Branhamella (Neisseria) catarrhalis

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A beta-lactamase-producing Branhamella catarrhalis was isolated in pure
culture from the right middle ear media of an otitis media in a 3-month-old
girl. The patient responded well to cefamandole treatment.

Otitis media caused by Branhamella catarrhalis has been reported infrequently (3, 7). The
role of this organism in middle ear infections was often underestimated, because the patients re-
plied well to ampicillin treatment and the organism was less invasive. However, the preva-
ence of otitis media caused by this organism sometimes was ranked just below Streptococcus
pneumoniae and Haemophilus influenzae according to some reports (2, 4, 6). Recently, we
have noticed three cases of recurrent otitis media due to Neisseria-like organisms (as deter-
mined by Gram stains of middle ear aspirations). They did not respond to ampicillin treatment.
We had the opportunity to study one case further, and we found that beta-lactamase-produc-
ing B. catarrhalis was responsible for the difficulty in treatment. The purpose of this note is
to report that infections caused by beta-lacta-
mase-producing B. catarrhalis have recently
been appearing with increasing frequency (9; M.
A. Johnson, W. L. Drew, and K. Montgomery,
C158, p. 336). In cases of otitis media or other infections due to this organism, the treatment
may need to be reevaluated.

Case report. A 3-month-old Caucasian girl
was admitted to Children’s Hospital of San
Francisco for the second time with a diagnosis
of bilateral draining otitis media, lobar pneu-
monia, and possible sepsis. The previous admis-
sion had been for sepsis of the newborn and
aseptic meningitis. She had a history of ear
infections that had been treated with ampicillin.
Upon examination this girl presented a tempera-
ture of 100.2°F (ca. 37.8°C) and revealed a
necropsic head with fontanelle not bulging,
but soft. The ears contained draining fluid
from both tympanic membranes. The eyes
were weepy, and the nose was congested. The chest
presented tugging in the right chest with definite
intercostal and subcostal retraction, and the left
lung was clear. Blood cultures were negative.
The spinal fluid did not reveal any bacteria, but

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B. catarrhalis has been shown previously to be 100% sensitive to ampicillin (7). However, with increasing use of oral penicillins, the frequency of beta-lactamase-producing B. catarrhalis infections will be expected to rise, because this organism is known as one of the normal oral flora. In addition, the increase in penicillin-resistant strains among other commensal bacteria, such as Haemophilus sp., Streptococcus viridans, and Bacteroides melaninogenicus (1, 5, 8, 11), is the ultimate problem for current standard therapy and deserves further investigation.

LITERATURE CITED