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Letters to the Editor

_Mobiluncus_ spp: pathogenic role in nonpuerperal breast abscess

We report a female patient (we believe to be the first in the United Kingdom) in whom a _Mobiluncus_ spp was isolated from an infected site outside the genital tract. The species may play a role in the causation of nonpuerperal breast abscesses.

A 38 year old woman presented to her general practitioner with a painful left breast. Three years before, breast implants had been inserted following bilateral submammary excision for benign mammary dysplasia and duct ectasia.

On examination the breast was tender, inflamed, and discharging pus. A swab was taken, and the patient started on ampicillin and flucloxacillin.

The swab was cultured both aerobically and anaerobically and yielded a heavy mixed growth of two anaerobes. These were a _Bacteroides_ species, and a Gram negative curved rod resistant to metronidazole, which was identified by the National Collection of Type Cultures, Public Health Laboratory Service, Colindale as _Mobiluncus curtisi_, subspecies holmesii.

Anaerobic curved rods were first isolated from the female genital tract in 1913. More recently the possible role of these organisms in non-specific vaginitis and their taxonomic position has been discussed.

In 1984 Spiegel and Roberts compared 22 strains of curved rods (isolated from the vaginas of 22 women with non-specific vaginitis) against phenotypically similar species.
in already well described genera. Based on the 
criteria of biochemical tests, electron-
microscopy, and DNA homology, the 22 
strains could not be placed in an existing 
genus. Therefore, a new genus Mobiluncus 
(mobilis capable of movement, uncus a 
hook, Mobiluncus a mobile curved rod) was 
proposed. This has a guanine: cytosine 
ratio of 49–52%.

To our knowledge this is the first isolation 
outside the genital tract of Mobiluncus sp in 
this country. There is one report of a 
confirmed isolation outside the genital tract 
from the Netherlands, and a series of four 
patients from Belgium where it was 
deduced retrospectively that the isolates 
belonged to the Mobiluncus genus.

Anaerobic breast abscess due to Bacte-
roides species, often in association with 
other anaerobes, has been well document-
ed. Leach et al concluded that anaerobic 
breast abscesses occur in post-puerperal 
women with inverted nipples and postulated 
that the source of the organism was either 
the vagina or the oropharynx rather than 
the bowel. In the only confirmed report of 
Mobiluncus isolated from a breast abscess 
the patient was not pregnant and had 
inverted nipples. Our patient was also 
not pregnant and had a prosthetic breast 
implant following surgery for duct ectasia. 
The implant would have provided a focus 
for organisms to settle, similar to the focus 
offered by duct ectasia or chronic breast 
disease in patients with inverted nipples, 
the organism gaining access to the breast 
either by bacteremia or by direct transfer from 
the genital tract. There was no history of 
vaginal "discharge" at presentation, nor was 
it specifically looked for, consequently no 
high vaginal swab was taken at the time.

It seems likely, therefore, that the same 
mechanism may operate for both Bacte-
roides and Mobiluncus spp in causing breast 
abscess, although at present, there have been 
too few isolates of Mobiluncus spp to be cer-
tain.

Detection and importance of \( \beta \) lactamase 
producing "non-pathogens" in patients with 
chronic obstructive airways disease

Since \( \beta \) lactamase activity was first described 
in 1940 by Abraham and Chain\(^1\) a 
attention has been directed to its detection and clinical 
importance in body secretions. In 1945 
Gots\(^2\) described a rapid method for deter-
mining whether organisms produce penicil-
linase, using a penicillin agar medium inocu-
lated with an organism sensitive to 
penicillin.

In recent years it has been reported that 
\( \beta \) lactamase producing "non-pathogenic bacteria" have contributed to the failure of 
\( \beta \) lactamase treatment in patients with respira-
tory infections.\(^3\)\(^4\) The commonest \( \beta \) 
lactamase producing organisms described are Staphylococcus aureus, Haemophilus influenzae, Haemophilus parainfluenzae, Branhamella catarrhalis and Bacteroides 
spp.\(^5\)

This report sets out to show whether such 
production of \( \beta \) lactamase is clinically 
important in patients with acute 
exacerbations of chronic obstructive air-
ways disease (COAD), who are often treated 
with ampicillin.

Between September 1984 and March 1985 
a random selection of sputum from patients with 
exacerbations of COAD was made. 
The specimens were cultured for respiratory 
pathogens and subsequently were examined for 
\( \beta \) lactamase produced from "non-
pathogens" present in the upper or lower 
respiratory tract.

A modified Gots's\(^7\) technique was used 
using mannitol salt agar containing 1·6 
\( \mu \)g/ml of penicillin—that is, four times the 
minimal inhibitory concentration of penicil-
lin to Staphylococcus aureus NCTC 6571. 
This was seeded with a four hour broth 
culture of S aureus NCTC 6571. Size 4 wells 
were punched out and half filled with sput-
ished sputum (Stat-Pack Dithiothreitol 
solution, Calbiochem-Behring). The follow-
ing morning they were examined for growth of 
S aureus on the surface of the agar. In 
those which showed growth the sputum 
cultures were re-examined, each isolate being 
tested for production of \( \beta \) lactamase, using 
Mast intralacam strips. Of the 105 sputa 
tested, only six showed evidence of \( \beta \) lac-
tamase activity. There were no Haemophilus 
influenzae producing \( \beta \) lactamase in the 
group, and examination of the culture of 
the sputa showed no organisms producing \( \beta \) 
lactamase.

Of the six positive sputa showing \( \beta \) lac-
tamase activity, culture yielded upper respira-
tory tract flora in three cases and Strept-
occocus pneumoniae in three cases, two of 
which responded to amoxicillin, the third 
patient died of carcinomatosis of the lung 
the day the specimen was taken.

The increased incidence of production of 
\( \beta \) lactamase by Haemophilus spp\(^5\) has 
created a dilemma in the choice of initial anti-
biotic treatment in patients with 
exacerbations of COAD. In an area with 
a relatively low prevalence of \( \beta \) lactamase pro-
ducing Haemophilus influenzae (less than 1% in this hospital) it seems that ampicillin 
is appropriate first line treatment in these 
patients, in view of the low incidence of \( \beta \) 
lactamase in their sputum.

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Biphenotypic leukaemia

We previously reported a case of bipheno-
typic leukaemia (T acute lymphoblastic 
leukaemia and acute myeloblastic leukaemia)
Mobiluncus spp: pathogenic role in non-puerperal breast abscess.
M J Weinbren, R M Perinpanayagam, H Malnick and F Ormerod

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