Isolation of *Neisseria lactamica* from the female genital tract

A case report

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SUMMARY *Neisseria lactamica* was isolated from the genital tract of a young patient with a persistent vaginal discharge. Although infection with *N. lactamica* occurs very rarely, the importance of complete biochemical identification of neisseriae is emphasised in view of the serious social and medicolegal consequences which could result from a misdiagnosis of gonorrhoea.

Introduction

Neisseria lactamica is similar to *Neisseria meningitidis* in many respects but differs in its relative lack of virulence and ability to utilise lactose.¹ Although meningococcal colonisation of the genital tract is recognised with increasing frequency^{2,3} there has only been one previous report of the isolation of *N. lactamica* from a genital site.⁴ This paper reports an additional isolation of *N. lactamica* from the genital tract and emphasises its rarity.

Case report

CLINICAL HISTORY

An 18-year-old secretary, who was engaged to be married, presented to her general practitioner with depression and complaints of a yellow offensive vaginal discharge of some days' duration. She was taking Ovranette (Wyeth Laboratories) contraceptive pills, and her menstrual cycle had been normal. A clinical diagnosis of *Trichomonas vaginalis* infection was made and a one-week course of treatment with metronidazole (600 mg daily) started. During the week of treatment, her symptoms improved but recurred within a few days of the end of the course. Two weeks after her initial visit she returned still depressed and complaining of a troublesome vaginal discharge, dysuria, and frequency of micturition. On

examination she was afebrile but had a foul-smelling yellowish vaginal discharge. The cervix was inflamed and the uterus, although of normal size, was tender on bimanual examination. The uterine appendages were normal. Cervical and high vaginal swabs were taken, placed in Stuart's transport medium, and sent to the laboratory with a midstream specimen of urine (MSSU). Empirical treatment with clindamycin (600 mg daily) was started.

LABORATORY INVESTIGATIONS

Investigation of the MSSU showed many pus cells and *Proteus mirabilis* ($>10^8$ /l). Direct microscopy of the vaginal and cervical swabs showed many pus cells and mixed organisms. No intracellular Gram-negative diplococci were seen. Routine culture yielded many *Bacteroides fragilis* and anaerobic streptococci; culture on modified New York City medium,⁵ in an atmosphere of 5% CO₂ in air, showed moderate numbers of Gram-negative diplococci, which were identified as *Neisseria lactamica* by a rapid carbohydrate utilisation test.⁶

TREATMENT AND FOLLOW UP

In view of the laboratory findings, the patient was given a 10-day course of cotrimoxazole (4 tablets daily) for her urinary tract infection. When she attended for follow up two weeks later, the urinary symptoms had resolved and her MSSU culture gave a negative result. The vaginal discharge remained troublesome and two high vaginal swabs (one taken at follow up and another a month later) showed large numbers of *Bacteroides fragilis* and anaerobic streptococci. Neisseriae were not seen in or cultured from any further specimens.

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Discussion

In view of the persistence of the vaginal discharge after the disappearance of *N lactamica* from the genital tract it is unlikely that this organism contributed to the patient's symptoms. The anaerobic streptococci and *Bacteroides fragilis* were probably more important in this respect, although their relationship to troublesome vaginal symptoms is not well understood.⁷

The rarity with which *N lactamica* is isolated from the genital tract is emphasised by our failure to isolate it from over 20 000 patients attending a sexually transmitted diseases clinic over the last five years. Nevertheless, in view of the more frequent occurrence of meningococci in the genital tract,^{2,3} this report reinforces the view that full biochemical identification of oxidase-positive Gram-negative diplococci growing on selective medium is necessary to avoid the serious social and medicolegal consequences which could result from a misdiagnosis of gonorrhoea.

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