Syphilis symposium

Syphilis in the fens

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At the beginning of 2000 several clinics in Cambridgeshire and Suffolk saw an increase in new cases of infectious syphilis. This cluster of cases was unusual in that unlike other clusters reported in the United Kingdom it involved transmission of syphilis locally by heterosexual sex among predominantly white middle aged individuals, some of whom had met their sexual contacts through internet chat rooms. This cluster of cases was reported initially in the Communicable Diseases Review¹ and written up and presented at the MSSVD Spring meeting in Belfast.² At least two other papers have been submitted for publication on this cluster (L Doherty, K Fenton, J Jones, *et al* Infectious syphilis in England—return of an old foe?; M Richardson, A Palfreeman, P B Nielsen, *et al* A case of congenital syphilis following negative antenatal screening; both submitted to the *BMJ*).

There are a number of lessons that can be learnt from our experience in Cambridgeshire.

(1) We should not drop our guard in screening for syphilis both in the blood transfusion service, the antenatal clinic, and in genitourinary medicine clinics. The index case had been initially seen in a genitourinary medicine clinic and had declined a blood test because he was a regular blood donor and therefore felt it was not at all necessary. What the clinic staff did not know was that his recent blood donation had been screened as positive and that the blood transfusion service was endeavouring to contact him at that time.

(2) The second lesson is that a negative antenatal screening test for syphilis will not prevent vertical transmission if the mother has acquired syphilis in the second or third trimester. The transmission from the mother to infant under these circumstances is almost certain and unless the infection is promptly recognised and treated the consequences for the infant can be catastrophic.

(3) The third lesson is the importance of contact tracing in controlling the outbreak.

I will now go on to review the cases in Peterborough and what actions were taken to bring the outbreak under control.

Case 1 presented to the genitourinary medicine clinic with what appeared to be a healing herpetic lesion on the penis, which was herpes simplex virus (HSV) culture negative. He declined a blood test as he was a recent blood donor and his principal reason for attending the clinic was to seek a supply of Viagra. Some weeks later he was contacted by the blood transfusion service and asked to attend our clinic urgently. He came to the clinic, together with his fiancée, and blood was taken to

confirm the diagnosis. There were no physical signs or symptoms of secondary disease at the time and his penile lesion had healed. We were unable to contact anyone at the blood transfusion service until some time after he had left the clinic.

The blood transfusion service contacted us with the news that three different EIA tests had been positive and he had a positive IgM and a TPHA titre of >1:65 000. A previous blood donation 6 months earlier had been negative so it was clear that the serological tests were unlikely to be false positive. He was therefore recalled and started on treatment, as was his fiancée. At that time he denied any other sexual contacts.

While he and his fiancée disappeared off on their honeymoon with a large supply of doxycycline five other women presented to the clinic (having being contacted by the index case) requesting serological screening for syphilis. Three of his six partners had positive syphilis serology.

One of these contacts attended the clinic with a 7 week old child who was obviously pale and ill with a snuffy nose, spontaneous nose bleeds, and a fever. On examination this child had a hepatosplenomegaly, cervical lymphadenopathy, and the bridge of his nose was flattened. The paediatrician was summoned to the clinic and promptly admitted the child to the paediatric unit and started him on intravenous penicillin. Serological tests confirmed this child had syphilis with a reactive VDRL, TPPA titre 1:2560, and positive IgM and IgG.

The child's mother had had negative screening tests in the first trimester which were confirmed as non-reactive on retesting. She had almost certainly become infected after her antenatal screening.

Subsequent contact tracing linked our cases with cases in Huntingdon and Bury St Edmunds. The Bury St Edmunds cluster appeared to be linked to adult sex parties organised through the internet. Many of the Huntingdon patients had, like ours, already presented to the medical services with undiagnosed illnesses which, in retrospect, were almost certainly secondary syphilis. One patient had been admitted with a generalised rash and lymphadenopathy and had been diagnosed as having a viral illness, which was consistent with glandular fever despite negative mono spot test. Another patient was given a diagnosis of urinary tract infection despite several negative mid-stream urine samples. In none of these patients was syphilis considered or tested for until contact tracing was done and the diagnosis made retrospectively.

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Following the reporting of this surprisingly high number of new cases in a part of England where syphilis was unknown, the CDSC sent an outbreak control team to Cambridgeshire and we reviewed all the cases. We decided to screen for syphilis all blood samples sent to the Public Health Laboratory for infectious mononucleosis testing in adults, in addition to making sure that no further cases were missed, and to alert our obstetric colleagues to offer further

serological tests for syphilis in the third trimester in any women about whom they were concerned. To date there have been no further new cases.

- 1 CDSC. Outbreak of heterosexually acquired syphilis in Cambridgeshire. *Commun Dis Rep CDR Wkly* 2000; 10:401-4.
- 2 Moussa RA, Palfreman A. Syphilis in the fens, cluster cases of infectious syphilis in Peterborough. Poster 29. MSSVD spring meeting, Belfast, 24-26 May 2001.

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