Dr Rebecca Adlington
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Review of the presentation, management & outcome of 6 cases of genital Gonorrhoea in 6 pre-pubertal girls referred to a London SARC 2016-17

Dr Rebecca Adlington
Co-clinical lead, The Havens
King’s College Hospital NHS Foundation Trust
Disclosures

None
Genital GC infection in pre-pubertal children

- Genital Gonorrhoea (GC) infection is rare in pre-pubertal children

- A national surveillance study of the UK & Ireland identified only 6 cases over a 25 month period (Jan 2010 – Jan 2012)


- This case series: 6 cases of genital GC in girls <6 years referred to London SARCs over 18/12 (2016–17) from a variety of sources
Referral sources

- All presented with symptoms to A&E or GP
- No disclosures of child sexual abuse
- Only one previously known to social care
- All diagnosed GC culture +ve on initial swabs

- Referred to SARC
  - As part of S47 Child Protection investigation
  - Child protection medical
  - Full STI screening with ‘chain of evidence’ (COE)
<table>
<thead>
<tr>
<th>Case no.</th>
<th>Age (years)</th>
<th>Symptoms</th>
<th>Significant genital findings</th>
<th>Sensitivity/resistance</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>Vaginal discharge</td>
<td>None</td>
<td>Not available</td>
<td>Ceftriaxone IM</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>Green vaginal discharge</td>
<td>None</td>
<td>S=Az, Cef, Pen, Spec, Cip</td>
<td>Ceftriaxone 250 mg stat Azithromycin 200mg od 3/7</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Itchy green vaginal discharge</td>
<td>None</td>
<td>S=Az, Cef, Pen, Spec, Cip</td>
<td>Ceftriaxone 125 mg IM Azithromycin 200mg od 3/7</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>Genital itch, green discharge</td>
<td>None</td>
<td>‘Broad, inc. Penicillin’</td>
<td>Benzyl Penicillin IM</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>Mother and child had vaginal discharge</td>
<td>None, disputed hymenal appearance on peer review</td>
<td>Not available</td>
<td>Ceftriaxone 50 mg/kg IV 7/7 Azithromycin 200mg od 3/7</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>‘Sore knickers’ Yellow discharge</td>
<td>None</td>
<td>Not available</td>
<td>Amoxicillin 250 mg tds 10/7 Ceftriaxone 250mg IM Azithromycin 200 mg</td>
</tr>
<tr>
<td>Case no.</td>
<td>Disclosure</td>
<td>Contact screening outcome</td>
<td>Initial Child Protection Responses</td>
<td>Social Care Outcome</td>
<td>Legal outcome</td>
</tr>
<tr>
<td>---------</td>
<td>------------</td>
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<td>---------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>1</td>
<td>No</td>
<td>None identified</td>
<td>S47 Child and sibling taken into short term foster care</td>
<td>No CPP Case closed to SS</td>
<td>Case closed to police</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
<td>Older teenage sister, 16+ years</td>
<td>S47 Supervision order</td>
<td>CPP for 6 months then closed to SS</td>
<td>Case closed to police</td>
</tr>
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</tr>
<tr>
<td>4</td>
<td>Vague ++</td>
<td>Father</td>
<td>S47 Father removed, supervised contact</td>
<td>Remains on CPP</td>
<td>Case closed to police</td>
</tr>
<tr>
<td>5</td>
<td>No</td>
<td>Mother</td>
<td>S47 Stayed with grandmother during investigation</td>
<td>No CPP Case closed to SS co-sleeping mother</td>
<td>Case closed to police</td>
</tr>
<tr>
<td>6</td>
<td>No</td>
<td>Uncle</td>
<td>S47 Contact with uncle had ceased</td>
<td>Remains on CPP Previous SS involvement, neglect</td>
<td>Police referred to CPS. Awaiting decision</td>
</tr>
</tbody>
</table>
Discussion

• 6 cases GC vulvovaginitis seen in 18/12 - no other STI referred
  – Might there be under-diagnosis of other STIs in the community?

• GC in a child is almost always sexually transmitted
  – In 5/6 children positive household contact was found
  – This does not confirm child sex abuse
  – Some evidence that non-sexual GC transmission may occur

• A rapid, sensitive & supportive multiagency approach must be taken to investigate & manage all STIs in children
Pre-pubertal girl is susceptible to vulvovaginitis

**Anatomy**
- Absent pubic hair
- Lack of labial fat pads
- Proximity to anus
- Thin atrophic mucosa, cuboidal not squamo cells
- Alkaline pH

**Behaviour**
- Poor local hygiene (bottom wiping)
- Tendency to explore ....

Laura R. Marks Biofilm Formation Enhances Fomite Survival of Streptococcus pneumoniae and Streptococcus pyogenes. Infection and Immunity March 2014 Volume 82 Number 3 pp1141 - 1146
The role of fomites in non-sexual GC transmission

Gonorrhoea survives in pus in warm humid conditions (25-39 °C):

2- 3 hrs on contaminated cloth

Up to 3 days in a “wide variety of soft and hard materials”

SCARY
Would you want to take a shower here?
Outbreaks in babies on postnatal wards C19th attributed to contaminated rectal thermometers


Epidemics of conjunctival GC in the Tropics: flies acting as vectors


8yr old & the Aeroflot toilet seat

Dayan L. Transmission of Neisseria gonorrhoeae from a toilet seat. Sex Transm Infect 2004;80: 327
Call to GUM from a GP....

“I’m with a mother & her 4yr old girl who has vaginal discharge; MC&S are culture positive for GC”

• What should I say?

• What must I do?

• What can I give?
Immediate healthcare response to diagnosis of a STI in a pre-pubertal child

**Positive STI result**

- Liaise with Trust child safeguarding team
- Social services referral
- CAIT team referral

**Immediate referral to paediatric service**

- If A&E - Admit child
  - Inform paediatric consultant

**Liaise with SARC CYP team**

**Sexual health advice:**
- SARC GUM consultant/ GUM senior Doc
- Local SHC senior Dr/sexual health consultant safeguarding lead

**Advice on:**
- Further investigations
- Treatment
- Timings of TOC and FU investigations
- Testing of potential sources of infection

- SARC to arrange forensic medical examination or child protection medical examination
- Further swabs with chain of evidence (if required)
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- Safeguard

- Treat
What has been done so far?

- Investigations: (for other STIs), COE?
- Treatment: local pead team for management
  local GUM advice
- Safeguard: Contact local safeguarding lead & Children's Social Care

If disclosure/allegation: Call the Police 101 & CSC

What do you tell the parents/carers?

- Genital GC, outside the neonatal period, is almost always sexually transmitted

      ……Don’t elaborate! Avoid ‘coaching’ potential witness/ suspect
You are “obliged to make a child protection referral”
You will contact social services immediately who will arrange a strategy meeting & advise next steps
Summary

- GC vulvovaginitis is rare
- Presents to a variety of settings
- A standardised approach to all cases is needed

- In order to reach a decision about further action, investigation must include:
  - Examination by skilled examiner
  - Peer review
  - Effective interagency communication
  - “Reluctance to jump to conclusions” for or against CSA

Acknowledgements

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