National Clinical Symposium
Drug Toxicity Workshop

September 14 -15, 2006

NCHADS Social Health Clinic
Case Study
Case study – drug toxicity

- 34 year-old woman, diagnosed HIV +ve January 2006
- Minimal symptoms
- Past medical history:
  - No previous TB
  - No previous OI Prophylaxis
  - No ARV experience
  - No traditional Khmer/Chinese medicine
- No history of drug allergy

Exam:
- Weight 45 Kg
- WHO stage III (oral thrush), no evidence of active OI
- Commenced OI prophylaxis: cotrimoxazole and fluconazole
Laboratory results at baseline

- CD4: 78 cells / μL
- Hb: 111g/L
- LFT: AST = 99 U/L, ALT = 94 U/L
- HBV sAg negative
- HCV Ab negative
- CXR normal
Commenced ARV (35 days after start OI prophylaxis)

- D4T 30mg + 3TC + NVP (lead in dose for 14 days)

Follow up day 14 after start ARV

History:
- 4 days mild itchy rash on both arms
- 7 days of nausea occasional vomiting, no fever, no shortness of breath.

Exam:
- afebrile, VS normal
- mild maculo-papular rash on both arms
- other exam unremarkable
- Results of routine Lab monitoring at 2 weeks after start ARV
  - AST = 51 U/L, ALT = 57 U/L

- What is the cause of skin rash?
  - NVP?
  - Cotrimoxazole?

- What is your management plan?
  - stop all ARV? stop NVP only? stop cotrim only?
  - continue cotrim + ARV but keep NVP lead in dose and closely observe?
  - continue cotrim and increase NVP to full dose?
Our Management

- continued ARV with NVP lead in dose for 3 more days, kept OI prophylaxis and prescribed antihistamine.
- planned follow up in 3 days

Three days later

- skin rash and nausea had resolved
- switched to full dose NVP

Plan

- follow up + check routine LFT in 2 weeks (after NVP full dose).
- explained patient to come early or call doctor if any symptoms.
Patient came 2 days prior to planned follow up (28 days of ART)

History

- 3 days recurrence of itchy skin rash on both arms, back and abdomen + symptoms of fever

Examination

- afebrile, VS normal
- moderate dry, patchy maculo-papular rash on arms, back and abdomen. No mucus membrane involvement.
What is the most likely cause of skin rash?
- NVP?
- Cotrimoxazole?
- Other?

What is your management plan?
- Stop all ARV?
- Stop all ARV and cotrim?
- Stop NVP and continue D4T, 3TC for 10 days?
- Stop cotrim and continue same ARV?
Our Management:

- ceased cotrimoxazole
- continued same ARV
- gave antihistamine and Calamine skin lotion
- Checked liver function
- follow up planned in 3 days
- explained patient to come early or call doctor if any symptoms.
Follow up at 3 days (~31 days ART)

History:
- Skin rash worst, noticed mild redness both eyes
- Fever with chill once daily
- Sore throat when swallow, mild abdominal pain on epigastric area

Examination:
- T 38°C, other VS normal
- Mild conjunctival redness both eyes
- Dry lips, mildly red pharynx and tonsils, no mouth ulceration
- Skin rash worse, generalized over body, dry, no blisters
- Abdomen: soft mildly tender liver palpated 2 cm below costal margin

LFT: AST 144U/L, ALT = 202 U/L
Skin rash day 31 post commencement of ART
What is your management plan now?

- Stop all ARV?
- Stop NVP only and continue D4T, 3TC for 10 days?
- Stop NVP and switch immediately to EFV?
- Stop NVP and switch immediately start PI?
- Stop fluconazole?
Our Management:
- ceased fluconazole
- ceased NVP and continued D4T+3TC for 10 days
- planned to restart with EFV when the rash completely resolve and liver function significantly improved
- follow up at 3 days then weekly

24 days after stop NVP
- skin rash resolved and liver function normal
- commenced D4T 30 mg + 3TC + EFV

One month after recommenced ART
- asymptomatic, LFT normal
- recommenced fluconazole + cotrimoxazole

No recurrence of rash or abnormal LFT
# National Guidelines for the use of antiretroviral therapy in adults and adolescents (2003)

Table 8: Changing ARV because of side effects (see p18 for side effect management)

<table>
<thead>
<tr>
<th>NVP</th>
<th>Rash – moderate to severe (eg bullae, “wet”)</th>
<th>Rash – complicated (mucosal involvement or fever)</th>
<th>Hepatitis</th>
<th>Hepatitis – severe or life threatening</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Change NVP to EFV</td>
<td>Change NVP to PI or ABC</td>
<td>Change NVP to EFV</td>
<td>Change NVP to PI or ABC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Never use NVP again</td>
<td>Never use NVP or EFV again</td>
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</tbody>
</table>

Moderate dry rash with fever – should the guidelines be reconsidered and clarified???
Thank you very much