Cryptosporidiosis, Cyclosporiasis and Isosporiasis, three major infections in HIV Positive Patients, in Bukavu, D.R.Congo

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COCCIDIAN PARASITES
OUTLINE

• BACKGROUND & RATIONALE
• METHODS
• RESULTS
• ABOUT THE CONTROL
• CONCLUSIONS
BACKGROUND & RATIONALE
There are little data on the prevalence and clinical outcomes of coccidian parasites infection in HIV positive patients in Africa.
BACKGROUND & RATIONALE (2)

• This study has provided the first results on the **BURDEN** of digestive opportunistic parasitic diseases in Bukavu and helped to give informed control recommendations.
METHODS
METHODS

• **DESIGN:** Cross – sectional study.

• **Setting:** Opportunistic Infections Clinic of the Provincial Hospital of Bukavu

• **Sample size:** 108 patients

• **LAB**
  – Modified Ziehl Neelsen staining of stool sample
RESULTS
GENERAL CHARACTERISTICS OF POPULATION
Distribution of cases by gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>58.3</td>
</tr>
<tr>
<td>Female</td>
<td>41.7</td>
</tr>
</tbody>
</table>
Distribution of cases by age (years)

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;30</td>
<td>36.1</td>
</tr>
<tr>
<td>30 - 50</td>
<td>38.9</td>
</tr>
<tr>
<td>&gt;50</td>
<td>25</td>
</tr>
</tbody>
</table>
Distribution of cases by CD4 count

- <50 CD4/µL: 19.4
- 50 - 100 CD4/µL: 11.2
- 100 - 200 CD4/µL: 25
- >200 CD4/µL: 44.4
PATIENTS ON Antiretroviral Therapy

ART

63.9

26.1

YES

NO
Epidemiology of opportunistic parasites in the study population
Detection of opportunistic parasites

Parasites

Detected  33.3
Undetected  66.7
Frequency of opportunistic parasites

Cryptosporidium: 57.9
Cyclospora: 31.6
Isospora belli: 10.5
Parasites detection and Stool type

Diarrheic

<table>
<thead>
<tr>
<th>Detected</th>
<th>Undetected</th>
</tr>
</thead>
<tbody>
<tr>
<td>83.3</td>
<td>16.7</td>
</tr>
</tbody>
</table>

Loose

<table>
<thead>
<tr>
<th>Detected</th>
<th>Undetected</th>
</tr>
</thead>
<tbody>
<tr>
<td>59.7</td>
<td>40.3</td>
</tr>
</tbody>
</table>
Opportunistic parasites by stool type

P < 0.001

- **Cryptosporidium**
  - Diarrheic: 60
  - Loose: 50

- **Cyclospora**
  - Diarrheic: 30
  - Loose: 40

- **Isospora belli**
  - Diarrheic: 10
  - Loose: 0

- P < 0.001 indicates a statistically significant difference between the two stool types.
ABOUT CONTROL...
EVIDENCE
• INFORMED DECISIONS
• EVIDENCE
• CONTEXT
BURDEN
• BURDEN
CLINICAL/SOCIAL CONTEXT
• INFORMED DECISIONS
AVAILABLE EVIDENCE
CONCLUSIONS

• Opportunistic parasites are highly prevalent in HIV positive patients in Bukavu.

• These results suggest both POOR cART Adherence and WATER SANITATION.
RECOMMENDATIONS
Improving cART Adherence

WATER SANITATION COMMUNITY LEVEL

HOUSEHOLD WATER TREATMENT
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• ICAN organisation
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