

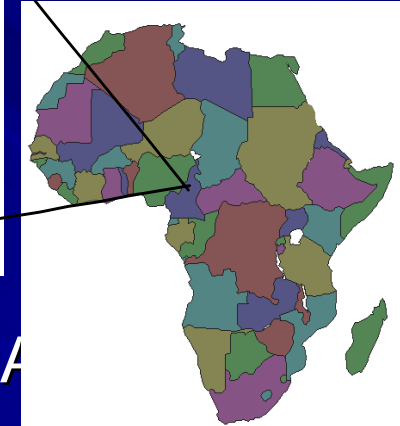
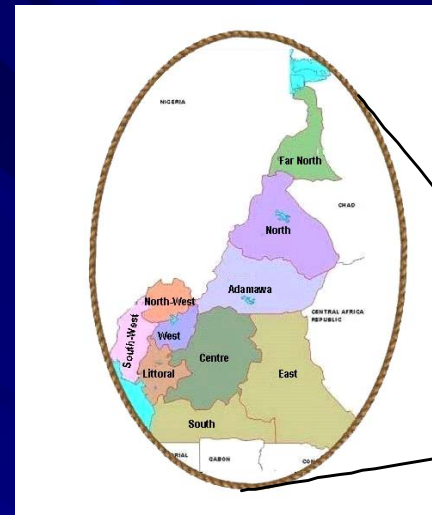
# The IHDS is a useful screening tool for HIV-Associated Dementia /Cognitive Impairment in HIV-infected adults in Yaoundé – Cameroon

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***GENEVA HEALTH FORUM 25-28 May 2008***

# Background

- Cameroon:
  - Total population: 20 Million
  - HIV prevalence: 5.4 %
  - Preliminary studies: prev. of 6.6-14.9% for 'HAD'
  - Frequency of HIV ass. Dementia (HAD) is still unknown
  
- The International HIV Dementia Scale (IHDS) has been used in Uganda and India as a good screening tool for HAD<sup>3</sup>.



<sup>1</sup>Dongmo et al, 2003, <sup>2</sup>Ongolo-Zogo et al 2000;

# Objective

- To assess the usefulness of the International HIV Dementia Scale (IHDS) as a screening tool for HAD / cognitive impairment in Cameroon.

# Methods 1

- **Study Design:** Case – control
- **Setting:**
  - HIV Day-Care Centre, Central Hospital Yaounde (cases)
  - Social Welfare Centre, Univ. of Yaounde 1 (controls)

# Methods 2

## ➤ Inclusion criteria

- ✓ Cases: HIV+ adults 18 to 60 yrs; consent.
- ✓ Controls: HIV- adults, age & sex matched to cases; consent

## ➤ Exclusion criteria

- All focal or diffuse CNS disorders, alcohol, systemic illness

# Methods 3

## ➤ Screening for HAD

➤ IHDS cut-off of  $\leq 10$

## ➤ IHDS Sub-tests <sup>3</sup>

- ✓ Timed fingertapping
- ✓ Alternating hand movement
- ✓ 4-word recall at 2 minutes.

# Results 1

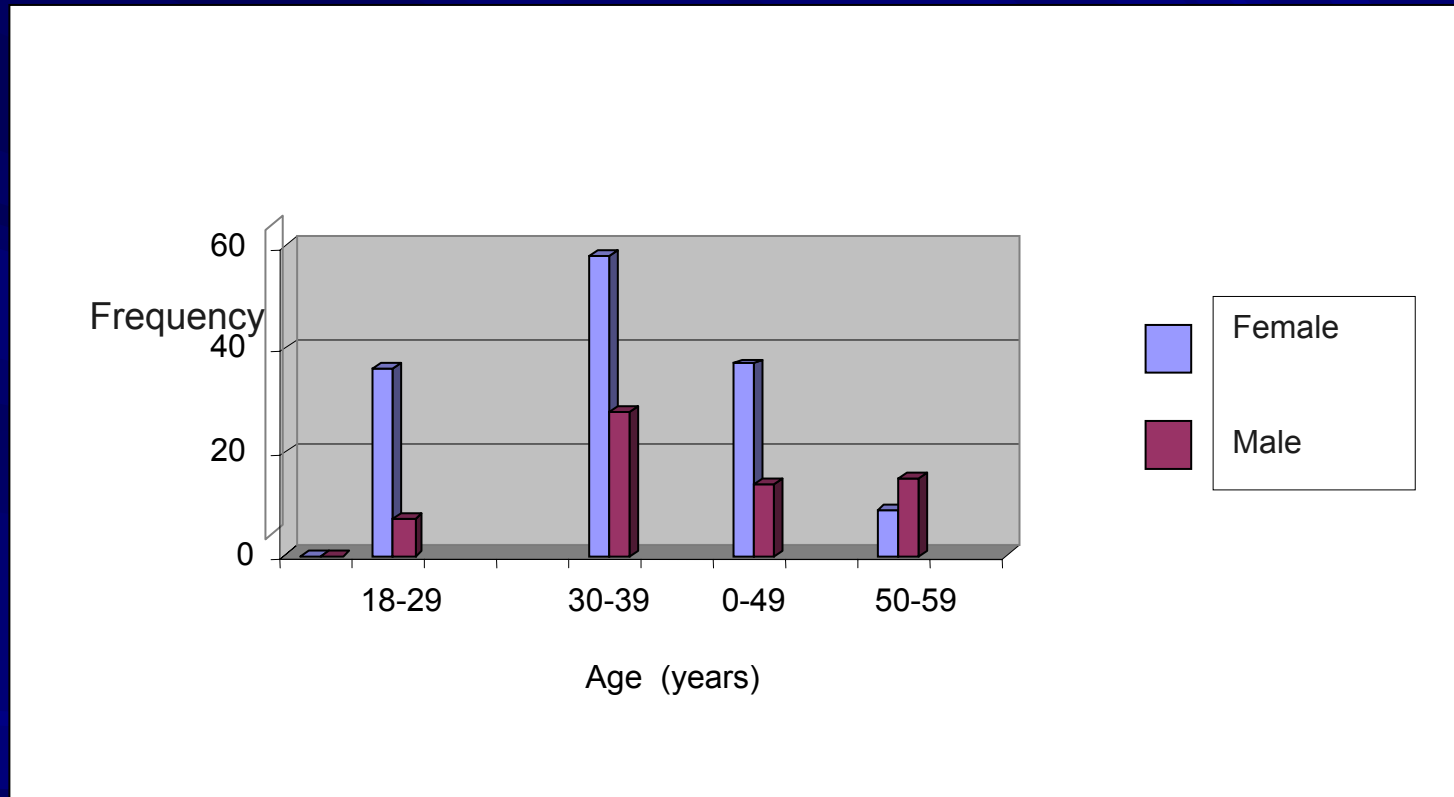


Fig. 1 Age and sex distribution of study sample (n = 204)

# Results 2

**Table 1: Socio demographic & clinical characteristics of the study subjects**

Variable	HIV-negative (n=204)	HIV-positive (n=204)	p-value
Sex	n <sup>o</sup> (%)	n <sup>o</sup> (%)	
Male	64 (31.4)	64(31.4)	0.003
Female	140 (68.6)	140 (68.6)	0.003
Mean age (years)	37.1 ± 8.7	37.2 ± 8.8	0.9100
Male	40.2 ± 8.9	40.3 ± 8.9	0.961
Female	35.9 ± 8.3	35.8 ± 8.4	0.962
Education (years)	12.96	11.12	0.9141
Mean CD4 counts/μL	NA	265 ± 194	NA

- Mean CD4 of the HAD/CI sub group: 175 cells/μL
- Mean CD4 of the non HAD/CI sub group: 291 cells /μL, p = 0.0006
- Prevalence of HAD/CI in patients with ≤ 200 CD4/ μL with respect to patients with >200 CD4/μL was 2.3 (p = 0.0025)

# Results 3

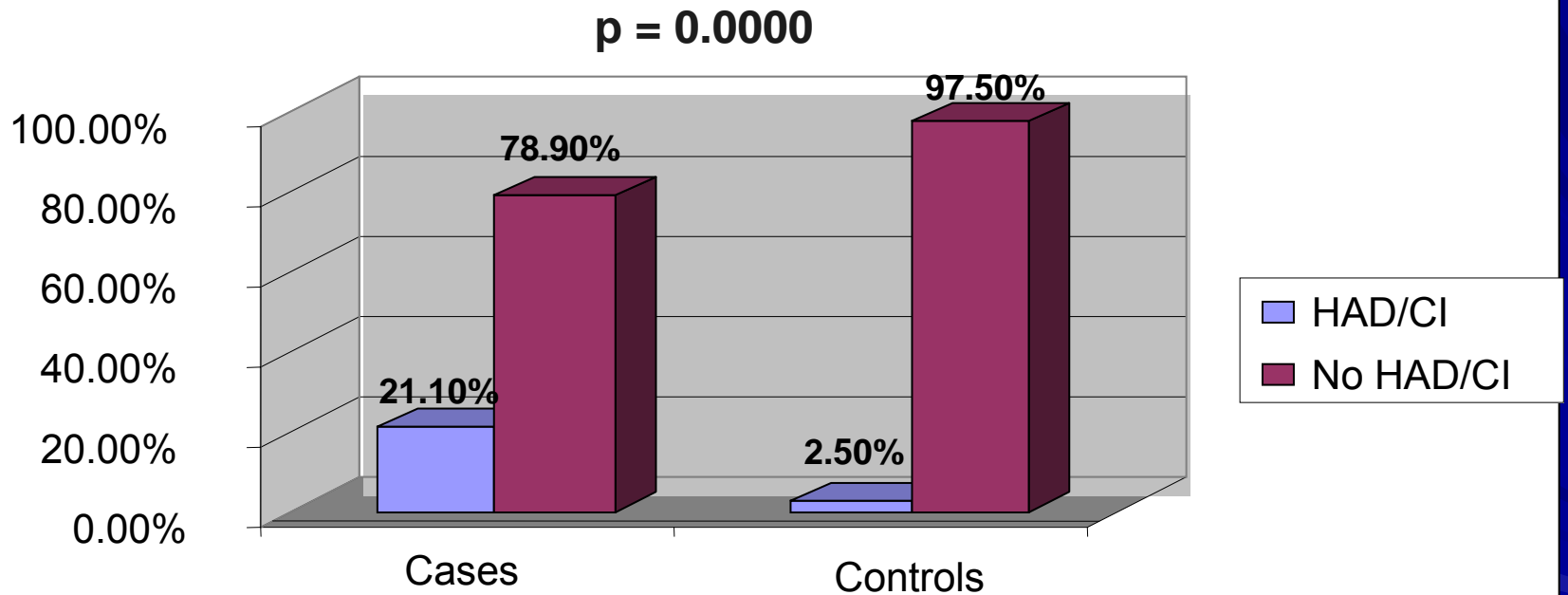


Fig 2: HAD/Cognitive Impairment (CI) by IHDS score in cases and controls

# Results 4

**Table 2: Comparison of the IHDS scores b/w the HIV+ and HIV- subjects**

	<b>HIV-neg group</b>	<b>HIV-pos group</b>	<i>p</i> -value
	<b>Controls (n=204)</b>	<b>Cases (n=204)</b>	
IHDS total score	11.28 (0.56)	10.87 (0.91)	0.0000
IHDS finger tapping subscore	3.4 (0.5)	3.4 (0.5)	0.1797
IHDS alternating hand sequence	3.96 (0.20)	3.88 (0.34)	0.005
IHDS 4-word recall	3.9 (0.3)	3.6 (0.6)	< 0.00001

IHDS, International HIV Dementia Scale. Values are given as mean values ( $\pm$  SD)

HIV-neg = HIV-negative; HIV-pos = HIV-positive

# Results 5

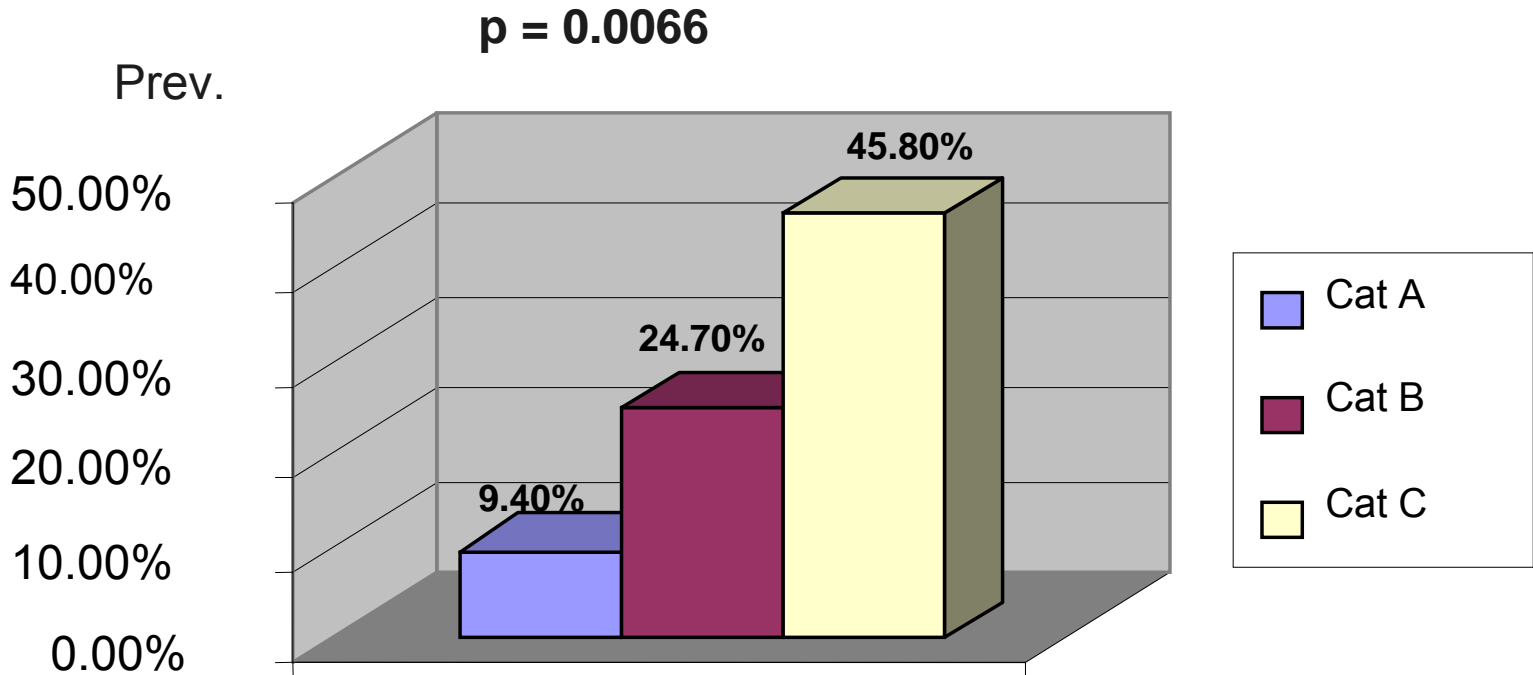


Fig 3: Prevalence of HAD/CI within each class of HIV infection

# Results 6

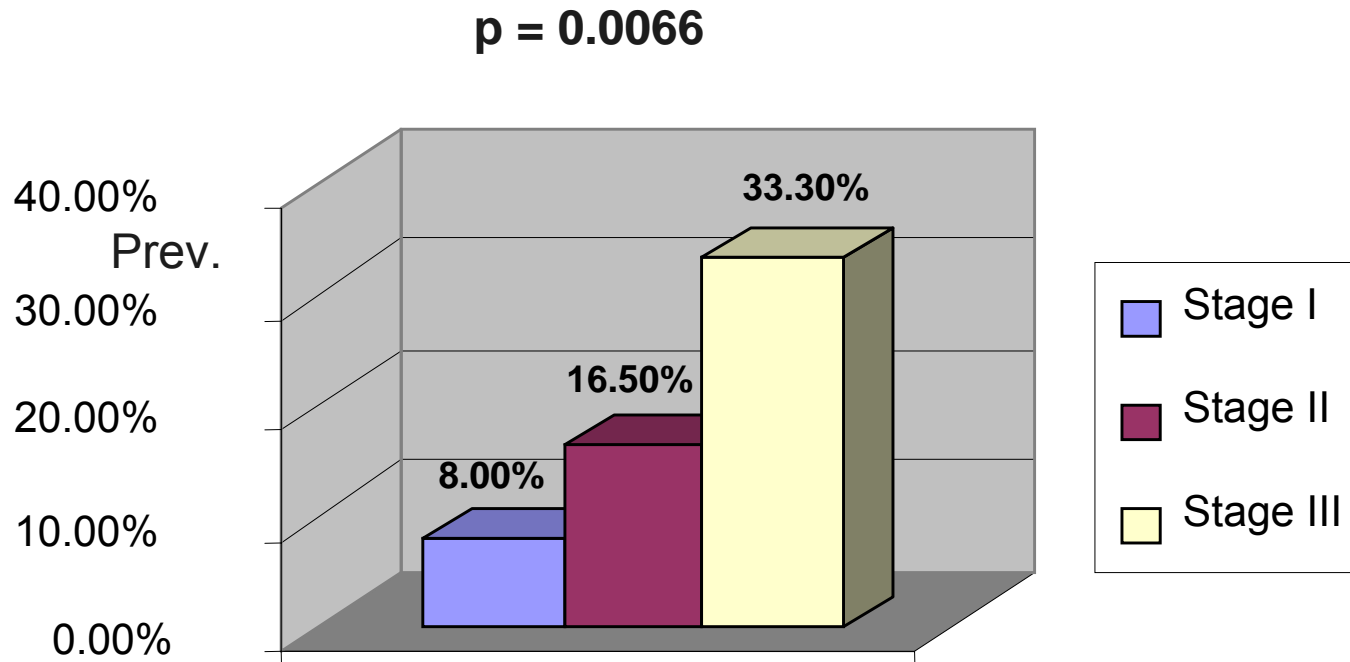


Fig 4: Prevalence of HAD/CI within each stage of HIV infection

# Conclusions

- HIV-positive and HIV-negative subjects successfully screened using the IHDS in Yaoundé – Cameroon.
- HIV-positive patients had significantly lower mean IHDS scores than HIV-negative controls.
- The prevalence of possible HAD in Yaounde is 21.1%
- The IHDS performance in HIV patients reduced significantly with disease severity.

# Perspectives

- Strategic use of IHDS as a screening tool in all HAD studies in Cameroon
- Current work:
  - Confirming our results with complete neuropsychological test battery
  - Establishing neuropsychological test norms in a control sample.

# Acknowledgements

- Njamnshi et al. The IHDS is a useful screening tool for HAD/HACI in Adult HIV patients in Yaounde- Cameroon.

*Journal of Acquired Immune Deficiency Syndromes, 2008, In press.*

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# Thank You

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