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Fishing activity, health characteristics and mercury exposure of Amerindian women living alongside the Beni River (Amazonian Bolivia).

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To cite this version:

Eric Bénéfice, Selma Luna Monrroy, Ronald Lopez-Rodriguez. Fishing activity, health characteristics and mercury exposure of Amerindian women living alongside the Beni River (Amazonian Bolivia).. International Journal of Hygiene and Environmental Health, 2010, 213 (6), pp.458-64. 10.1016/j.ijheh.2010.08.010 . ird-00547706

HAL Id: ird-00547706

https://ird.hal.science/ird-00547706v1

Submitted on 17 Dec 2010

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Table 1 Fishing activity and fish consumption of the women in relation to hair mercury concentrations (H-Hg, µg/g)

Variable	Number	Median H-Hg	95% CI	H value [1] p
Livelihoods				
Wage earners and craftsmen	18	2.3	1.7-3.9	38.1
Farming and logging	88	3.3	2.7-3.9	0.000
Fishing as principal activity	57	8.2	6.4-9.1	
Fish consumption				
Once a day	32	8.0	5.6-9.1	15.7
At least once a week	99	3.7	2.9-5.0	0.0003
Less than once a week	32	3.5	2.3-5.1	

[1] Z: Mann-Whitney U or Wilcoxon rank-sum test for difference in medians (two means comparisons).

Table **2** Characteristics of women examined during the study

Variable	Mean/number	SD	median	Percent abnormal (95% CI)
Ethnic group	Esse Ejjas: 25 Tacanas: 148			
Age (years)	34.9	13.2	33.0	
Height (cm)	149.2	5.3	148.6	% < 145 cm 21.3 (15.5 ~ 28.2)
BMI (kg/m^2)	24.1	3.3	24.0	% > 24.5 42.7 (35.3 ~ 50.5)
Hemoglobin (g/100 ml)	12.2	1.7	12.4	% < 11 g/100 ml 22.3 (16.3 ~ 29.3)
H-Hg (µg/g)	5.5	4.1	4.4	% > 10 µg/g 14.7 (9.6 ~ 21.1)
Systolic blood pressure (mm Hg)	106.9	14.8	108	% > 130 mmHg 4.1 (1.6 ~ 8.2)
Diastolic blood pressure (mm Hg)	66.2	9.3	65	% > 90 mmHg 0.0 (0.0 ~ 2.1)

Table **3** Responses to neurological examination of contaminated and non-contaminated women

Item	Response	H-Hg ≤ 5µg/g	H-Hg > 5µg/g	χ^2	p [a]
Visual field	normal	78	57	0.31	ns
	reduced	7	**7**		
Paresthesia	no	82	53	7.0	**0.007**
	yes	5	13		
Static balance	normal	86	59	5.5	**0.01**
	instability	1	6	Fisher	0.02[b]
Dynamic balance	Normal	61	45	0.01	ns
	Instability	26	20		
Motor coordination	normal	78	53	1.5	ns
	weak	9	11		

[a] statistical power (ns: not significant)
[b] power value of the Fisher exact test

Table 4 Reproductive health parameters of the women in relation to hair mercury concentrations (H-Hg, µg/g)

Variable	Number	Median H-Hg	95% CI	Z values or H value [1] p
Post-menopausal	132	4.2	2.5-6.1	Z = 0.7
Pre-menopausal	132	4.5	3.5-5.5	ns
Pregnant [2]	17	3.2	1.3-3.8	Z=2.4
Not pregnant	115	5.2	3.9-6.2	0.001
Lactating	59	5.5	4.5-6.4	Z=2.2
Not lactating	72	3.5	2.8-5.2	0.02
Child deaths				
0 child deaths	79	3.5	2.6-4.4	H= 9.0
1 child death	33	5.2	3.5-7.8	0.01
More than one child death	50	5.6	3.7-7.9	
Spontaneous abortion				
0 abortions	114	4.0	3.3-5.6	H=4.2
1 abortion	30	4.4	2.7-6.1	ns
More than one abortion	19	8.0	2.9-9.6	

[1] Z: Mann-Whitney U or Wilcoxon rank-sum test for difference in medians (two means comparisons).
H: Kruskall Wallis one way analysis of variance on ranks (several means comparisons)
Ns= not significant

[2] Comparisons made only in pre-menopausal women

Table 5. Result of logistic regression between risk of mercury contamination, socio-cultural and physical characteristics of women

Parameter	Wald Z-Value (Beta=0)	Wald Prob Level	Odds Ratio Exp(B)	Lower 95% CI	Upper 95% CI	Regression Coefficient (B or Beta)
Intercept	-1.55	0.12	0.03	0.00	2.64	-3.63
Age	-2.41	0.02	0.95	0.92	0.99	-0.05
BMI	2.32	0.02	1.18	1.03	1.35	0.16
Static balance abnormalities	2.30	0.02	22.46	1.59	316.80	3.11
Esse Ejjas ethnic group	1.98	0.05	6.31	1.01	39.23	1.84
Paresthesia	2.12	0.03	4.48	1.12	17.94	1.50
Fishing activity	-3.19	0.00	0.18	0.06	0.51	-1.73
Child death	2.81	0.01	4.17	1.54	11.31	1.43
Daily fish consumption	2.73	0.01	4.80	1.56	14.79	1.57
Blood hemoglobin	0.49	0.63	1.07	0.83	1.37	0.06