184 - DERMATOGLYPHIC AND ANTHROPOMETRIC PROFILE OF THE INDIGENOUS PEOPLE BORARI FROM ALTER-DO-CHÃO VILLAGE IN SANTARÉM-BRAZIL

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INTRODUCTION

The interest in evaluate the phenotypic characteristics of indigenous societies distributed through brazilian territory isn't new. In the scientific literature, several research about dermatoglyphics profiles in south American indigenous people are found (JANZEN; SALZANO; PALATNIK, 1983; DESCAILLEAUX et al., 2001). However, there are few which have utilized indigenous people from west region of Pará-Brazil as sample. This way, this study aim in identify the anthropometric and dermatoglyphic profile of indigenous people Borarí (Santarém-Brazil), through Dermatoglyphics method.

INDIGENOUS PEOPLE BORARI

Poetically called “Pearl of Tapajós”, Santarém city is in Pará State (micro region of Medium Amazonas), at the confluence of two big and important rivers: Amazonas and Tapajós. Is about 1.369 km from capital Belém, with an area of 24,154 km2 and has, approximately, 300 thousands habitants (CARVALHO; SOUSA; QUEIROZ, 2006).

The Alter-do-Chão village, for the other side, is one of twelve districts of Santarém, about 34 km from downtown, with fluvial access (by Tapajós river- 3 hours travel) and via highway (by PA 457, Everaldo Martins highway–1 hour travel). According to IBGE (2000), Village has 6,740 habitants on an area about 80 ha, being mainly descendants of indigenous people Boraris. As in many others brazilians localities, Alter-do-Chão was founded by a Portuguese Catholic Mission, denominate “Tapajós” Mission, which had the main objective brings the native Indians to Catholicism. This Mission was established in 1661 under command of Father João Felipe Bettendorf (SANTOS, 2006).

According to Santos (2006), even existing divergences among local historian about its historical aspects, Alter-do-Chão, for its currents habitants, has its origins and foundation linked with indigenous people Borarí, which was part of six tribes of the Tupaiucu Nation. Although be clear the modification in infrastructure and miscegenation in Village, the descendants of this people has perpetuated their ancestral' culture due to rituals celebration performed since ancient times (SANTOS, 2006). Among these rituals, it can be distinguished the “Sairé”, one of the most old religious manifestation practiced in Boraris' village (AMARAL, 2006; CARVALHO; SOUSA; QUEIROZ, 2006; FERREIRA, 2005; SANTOS, 2006).

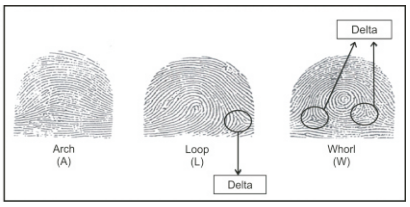
Conform anthropological and cultural evaluation, National Foundation for Indigenous People Support - Fundação Nacional de Amparo ao Índio (FUNAI) and Ministry of Health - Ministério da Saúde (MS) have legally recognized approximately 350 indigenous families Borari.

THE DERMATOGLYPHICS

In human being, according to Fernandes Filho (1997), fingerprints (IDs) are originated between the 3th and 6th month of intra-uterine life, remaining until cadaveric putrefaction. The fingerprints are universal genetic marks which have significative population and ethnic characteristics (CASTANHEDE; DANTAS; FERNANDES FILHO, 2003), being utilized, this way, as a diagnosis to find talents in sports. For this purpose, its utilization is important because impedes the waste of genetic potential, the onus in the selection process and facilitates a better orientation to the sport practice (FILIN; VOLKOV, 1998; MOSKATOVA, 1998). In this scenery, dermatoglyphics would be the study of fingerprints, because consider it as a wide spectrum genetic marker for utilization in association with the basic physical qualities and fibers typology (ABRAMOVA et al., 1995; BEIGUELMAN, 1995). In another worlds, this method would be an fiber typology identification instrument, although biopsy be considered the gold standard.

There are three groups of draws or dermatogliphos: arch (A), loop (L) and whorl (W)- draw, conform picture 1. It can be analyzed according to four characteristics: a) qualitative aspect (constitution of the draws), b) quantitative aspect (determined by the ridge count of each finger), c) total ridge count (TRC) e d) quantity of ridges inside draw (FERNANDES FILHO, 1997).

The first step to determinate the dermatogliphos is the identification of deltas index (D10). This index can vary between a minimum of “zero” (0) and a maximum of “twenty” (20), calculated, initially, through the evaluation of the intensity of the draws, in presence of deltas. The value 0 shows because arch (A) represent draw without deltas – the more simple; loop (L), the delta with one draw and whorl (W), with two deltas - the more complex (picture 1). This way, A correspond to “0”, L to “1” and W, to “2” (ABRAMOVA; NIKITINA; OZOLIN, 1995).



PICTURE 1: Fingerprints draws and deltas localizations.

Fernandes Filho (1997) and Fernandes Filho, Dantas and Fernandes (2005) report that aerobic, endurance and complex motor coordination physicals capacity are related to reduction of arch (till 0) and loop (<6), increase of whorls (>4) and TRC.

METODOLOGY

The study is characterized as descriptive research, with comparative typology (ex-post facto). According to Thomas and Nelson (2002), in this type of study, researcher doesn't have direct control over the independent variables, because it has

been occurred theirs manifestation or because are intrinsically not manipulated, being frequently utilized for characteristics comparison among groups.

Sample was composed by 45 individuals (24 men and 21 women), with average age of 35.4±19.4 years old residents in de Alter-do-Chão Village (Santarém-Brazil). It has been characterized as indigenous Boraris the individuals recognized for: a) their living in tribes and village's resident; b) genealogic analyses, through anamneses, which has matched them as indigenous people and direct descendants of original people.

Inclusion Criteria: be a Borari Indian legally recognized by FUNAI and MS; has indigenous parents and grandparents; living in Borarí tribe or Alter-do-Chão Village; is between 18 and 70 years old; signed for a clear understanding of research conditions and free will authorization term (TCLE).

Exclusion Criteria: shows superior member amputation, hand or finger, shows hard identification fingerprints related to the variables to be investigated.

An evaluation sheet for volunteer's general data and fingerprints collect has been utilized. Cummins and Midlo (1961) recommendations have been followed.

The results have been processed through descriptive statistic (absolute and relative frequencies, minimum, maximum, mean and standard deviation), utilizing Excel (Microsoft for Windows – 2007) software. Later, some data have been transferred to Bioestat® 5.0 software, in a way to establish the difference among studied variables, through application of the t Studant test. The p value $p<0.05$ for statistic significance has been adopted.

RESULTS

Table 01 shows minimum, maximum, arithmetic mean and standard deviation values of the anthropometrical measurement according to gender. According to these results, masculine sex has shown body mass and height mean higher than feminine (masculine: 63.3±17.7 Kg and 1.55±0.14 m; feminine: 57.7±13.8 Kg and 1.48±0.06 m) however, only the variable height has shown statistic difference (p=0.0092). By that time, the Body Mass Index (BMI) has indicated overweigh among Boraris, mainly in feminine gender which has obtained higher values (BMI=26.2±5.9 Kg/m²) than masculine (BMI=25.4±4.7 Kg/m²), however, difference statistics (p=0.6193) haven't been perceived.

Table 1: Anthropometric characterization of Boraris Indians according to gender.

Values	Masculine (n=24)			Feminine (n=21)		
	Mass (Kg)#	Height (m)*	BMI (Kg/m²)†	Mass (Kg)	Height (m)	BMI (Kg/m²)
Mín	22.5	1.19	15.1	33.0	1.33	15.9
Máx	87.3	1.74	34.9	82.2	1.59	39.6
AM	63.3	1.55	25.4	57.7	1.48	26.2
SD	17.7	0.14	4.7	13.8	0.06	5.9

Subtitle: Mín= Minimum; Máx= Máximum; AM= Arithimetic mean; SD= Standard deviation; BMI=Body Mass Index.
Test t: #p=0.2550; *p=0.0092; †p=0.6193.

Table 02 shows, minimum, maximum, arithmetic mean and standard deviation values of the total ridge count (TRC) of each fingers from both genders. In men, the right thumb and left ring finger have shown the higher mean of RC (RH=14.9±4.9 e LH=12.4±5.2). By this time in feminine, it has been the thumb of both hands (MR=15.4±4.0 and ML=13.6±4.0). Statistics differences between the RC of RH and LH of genders (p=0.4637) haven't been perceived.

Table 2: Total Ridge Count of each finger according to gender.

Values	Masculine									
	RH					LH				
	RC 1	RC2	RC3	RC4	RC 5	RC 1	RC2	RC3	RC4	RC 5
Mín	0	0	0	1	0	0	0	0	0	0
Máx	21	16	16	23	17	19	15	16	23	16
AM	**14.9**	**7.8**	**8.1**	**11.7**	**8.2**	**12.4**	**6**	**7.6**	**12.5**	**9**
SD	**4.9**	**4.6**	**4.3**	**5.8**	**5.4**	**5.2**	**5.2**	**5.5**	**6.7**	**4.6**
Values	**Feminine**									
	RH					LH				
	RC 1	RC2	RC3	RC4	RC 5	RC 1	RC2	RC3	RC4	RC 5
Mín	5	0	0	0	0	3	0	0	0	0
Máx	23	19	21	23	23	22	19	18	29	18
AM	**15.4**	**8**	**9**	**12.5**	**11.4**	**13.6**	**8.6**	**9.2**	**13**	**10.6**
SD	**4**	**6.1**	**5.8**	**6.3**	**6.3**	**4**	**5.3**	**5.5**	**6.7**	**4.6**

Subtitle: RH: Right hand; LH: Left hand; RC: Ridge count; AM: Arithimetic mean; SD: Standard deviation.
Test t: p=0.4637.

Table 03 shows the relative frequency of draws type of each finger in both genders. It can be notice that draw L shows a higher percent for both genders (67%), while W shows a value considered low (25%), but not significantly different between genders (p=0.4326).

Table 3: Relative frequency of draw type each finger according to gender.

Values	Gender					
	Masculine (n=24)			Feminine (n=21)		
	A	L	W	A	L	W
Relative frequency	8%	67%	25%	12%	67%	21%

Legenda: A: arch; L: loop; W: whorl.
Test t: p=0.4326.

Table 04 shows, minimum, maximum, arithmetic mean and standard deviation values of the total ridge count (TRC) and Delta (D10) Index from both genders. Results for TRC and D10 (105.1±42.2 and 11.4±3.5, respectively) summed to anterior table show that in Boraris predominate the development of physical qualities speed and explosive strength, correlated with a low level of coordination and endurance, because show values under 134.2 of TRC and 13.1 of D10 (ABRAMOVA; NIKITINA; OZOLIN, 1995). Statistics differences between TRC and D10 values between genders (p=0.4982 and p= 0.5371), respectively, haven't been perceived.

Table 4: Descriptive data of TRC and D10 of each finger according to gender.

Gender	n	AM and SD	
		TRC*	D10#
Masculine	24	111.1±44.6	11.8±3.4
Feminine	21	98.3±39.1	11.0±3.7
General	**45**	**105.1±42.2**	**11.4±3.5**

Legenda: TRC: total ridge count; D10: delta Index; AM: Arithimetic mean; SD: Standard deviation.
Test t: *p=0.4928; #p=0.5371.

Table 05 shows the relative frequency of digital formula according to genders. The formulas that have shown higher frquency were ALW (22.2%), 10L (24.4%) and W>L (22.2%). This allow us to deduce, according to Cunha Júnior and Fernandes Filho (2005), that speed and explosive strength are the physical qualities with higher predisposition in the studied sample. Statistics differences among RC of RH an LH between genders (p=0.6843) haven't been perceived.

Table 5: Relative frequency in digital formulas in genders.

Gender	Relative frequency (%)				
	ALW	AL	10L	L>W	W>L
Masculine	28.6%	23.8%	19.0%	14.3%	14.3%
Feminine	20.8%	20.8%	8.3%	33.3%	16.7%
General	**22.2%**	**13.3%**	**24.4%**	**15.6%**	**22.2%**

Subtitle: ALW: presence of arch. loop and whorl in any combination; AL: presence of arch and loop in any combination; 10L: ten loops; L>W: loop and whorl considering loop number equal or more than 5. W>L whorl and loop considering whorl number equal or more than 5.
Test t: p=0.6843

DISCUSSION

The results of this study point to overweigh and low height index, mainly in feminine gender.

Researches conducted with others indigenous ethnics in Brazil, as example Terenas in Mato Grosso do Sul State (RIBAS ; PHILIPPI, 2003) and Baré in Terra Preta, Manaus-Brazil (LIMA, 2004), also found overweigh among adults.

Gugelmin and Santos (2006) have observed a high correlation (r > 0.80), for both sexes, of BMI values and anthropometrical measurement of body composition in adults Xavánte from São José village, in Indigenous Land of Sangradouro-Volta Grande (Mato Grosso – Brazil). These results show that high values of BMI have suggested excess of adipose tissue among Xavánte. Similar results have been also observed by others authors (DIAS LEITE JUNIOR et al., 2007; CAPELLI; KOIFMAN, 2001).

As for the variables of the dermatoglyphic profile, it's been observed a pattern in the total ridge count of both hands, where RC1>RC2, RC2<RC3, RC3<RC4, RC4>RC5. This pattern has also been observed in another studies (ROQUETTI FERNANDES; FERNANDES FILHO, 2005).

In the Boraris has predominated the characteristics for the physical qualities development of speed and explosive strength, low level of coordination and endurance (TRC=105.1±42.2 e D10=11.4±3.5). This fact indicates that exist a predominance of the anaerobic genetic sport potential. For these individuals, this characteristic is very important for activities performed in daily basis in tribe, as hunting, fishing and mainly in fighting(SANTOS, 2006).

It's been observed in this study that draw loop (L=67% for both genders) has shown a higher relative frequency. These results have been different than found by Janzen, Salzano and Palatnik (1983) in studies Erigbactsa Indians (Mato Grosso, Brazil), which have demonstrated that 53% of men and 51% of women had dominance of draw whorl while the low frequent was loop. But in African American population in Peru, Descailleaux et al. (2001) have found dominance of loop in 63.34% of men and 66.25% of women, being less observed arch in both sexes. By this way, dermatoglyphics can be considered also a technique utilized in comparison studies among races and peoples.

CONCLUSION AND RECOMENDATION

Based upon the results of the research, it can be noticed that sample of indigenous Borari from Alter-do-Chão (Santarém-Brazil) has show overweigh and low height index for the anthropometrical variables. As for the dermatoglyphic variables, predominance of draw whorl has been found, which is connected to the physical qualities speed and explosive strength. It has been also demonstrated low levels of coordination and endurance in the sample according to TRC and D10 results. The higher incidence draw in both gender has been L, while that W has shown a lower value. The digital formulas with higher incidence have been ALW (22.2%), 10L (24.4%) and W>L (22,2%).

It's been recommended the realization of similar studies with others ethnics groups in order that characterize them as genetic traces, through the dermatoglyphics method.

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DERMATOGLYPHIC AND ANTHROPOMETRIC PROFILE OF THE INDIGENOUS PEOPLE BORARI FROM ALTER-DO-CHÃO VILLAGE IN SANTARÉM-BRAZIL

ABSTRACT

Objective: Identify the anthropometric and dermatoglyphic profile of the indigenous people Boraris (Santarém-Brazil). Methodology: The sample was composed by 24 men and 21 women (n=45, 35.4±19.4 years old). For data collect, the Dermatogliphics protocol (CUMMINS; MIDLO, 1961) has been utilized. The results have been processed through descriptive statistic and the utilization of Excel (Microsoft for Windows – 2007) and Bioestat® 5.0 software. T Student test has been applied for the variation between genders. Results: It was observed that for the anthropometrical measurement, the masculine sex has shown height and body mass mean higher than feminine (masculine: 63.3±17.7 Kg and 1.55±0.14 m; feminine: 57.7±13.8 Kg and 1.48±0.06 m). But the Body Mass Index (BMI) has indicated overweigh among Boraris, mainly in the feminine gender (BMI=26.2±5.9 Kg/m²) than masculine (BMI=25.4±4.7 Kg/m²). However, only the variable height has shown statistic difference (p=0.0092). There was a pattern in the total ridge count of both hands, where RC1>RC2, RC2<RC3, RC3<RC4, RC4>RC5 (p=0.4637). The draws percentages were: L=67%, for both genders, W= 25% (masculine) and 21% (feminine) and A=8% (masculine) and 12% (feminine) (p=0.4326). The TRC and D10 values (105.1±42.2; p= 0.4982 and 11.4±3.5, p= 0.5371) characterize in sample the predominance of speed and explosive strength physical qualities development, showing low levels of coordination and endurance. The more frequent digital formulas have been ALW (22.2%), 10L (24.4%) and W>L (22.2%). Statistics differences between genders haven't been observed (p=0.6843). Conclusion and Recommendation: It can be notice that the sample of indigenous Borari from Alter-do-Chão (Santarém-Brazil) has shown for the anthropometrical variables, overweigh and low height index. For the dermatoglyphic variables have been a predominance of loop draw and also predominance of physical qualities speed and explosive strength. It's been recommended, this way, the realization of similar studies with another ethnics group for characterize them at genetic traces through the dermatoglyphic method.

KEYWORDS: Indigenous people Borarí; Dermatoglyphics, Physical Qualities.

PROFILS ANTHROPOMÉTRIQUE ET DERMATOGLYPHIQUE DES INDIGÈNES BORARI DE LA VILLE DE ALTER-DO-CHÃO À SANTARÉM-PA

RÉSUMÉ

Objectif: Identifier le profil anthropométrique et dermatoglyphique des indigènes dans la communauté des Boraris (Santarém-Pa). Méthodologie: L'échantillon se composait de 24 hommes et 21 femmes (n=45, 35,4±19,4 ans). Pour recueillir les données, nous avons utilisé le protocole de Dermatoglyphique (CUMMINS; MIDLO, 1961). Les résultats ont été traitées en utilisant des méthodes statistiques descriptives, en utilisant les logiciels Excel (Microsoft for Windows – 2007) et Bioestat® 5.0. Nous avons appliqué le test t de Student pour les variations entre les sexes. Résultats: Nous avons observé que pour les mesures anthropométriques, les mâles avaient un poids moyen et hauteur supérieur que les femmes (hommes: 63,3 ± 17,7 kg et 1,55 ± 0,14 m; femmes: 57,7 ± 13,8 kg et 1,48±0,06 m). Concernant les valeurs de l'Indice de Masse Corporelle (IMC), indiquent la surcharge pondérale entre les Boraris, en particulier les femmes qui ont obtenu des valeurs plus élevées (IMC=26,2±5,9 Kg/m²) que d'hommes (IMC=25,4±4,7 Kg/m²), toutefois, seule la variable de hauteur a montré la différence statistique (p=0,0092). Il y avait un modèle dans le nombre de lignes des doigts des deux mains, où SQL1>SQL2, SQL2<SQL3,

SQL3<SQL4, SQL4>SQL5 (p=.0,4637) Le design L a présenté le Mai en pourcentage pour les deux genres (67%), tandis que W a une valeur considérée bas (25%). Les valeurs de SQTL et D10 (105,1±42,2; p= 0,4982 et 11,4±3,5, p= 0,5371) caractérizent en l'échantillon la prévalence de développement des qualités physiques de la vitesse et la force explosive, montrant des niveaux bas de la coordination et l'endurance. Les formules numériques plus fréquentes étaient ALW (22,2%), 10L (24,4%) et W>L (22,2%). Il n'y avait pas de différences statistiques entre les sexes (P=6843). Conclusion et recommandation: Il est perçu que l'échantillon des indigènes Borari de Alter-do-Chão (Santarém-Pa) a présenté pour les variables anthropométriques indices de surpoid et basse stature. Pour les variables dermatoglyphiques, il y avait une prédominance de Boucle (L) et la prédominance des qualités physiques de la vitesse et la force explosive. Il est donc recommandé de mener des études similaires avec d'autres groupes ethniques afin de les qualifier de leurs caractéristiques génétiques, selon la méthode dermatoglyphique.

MOTS-CLÉS: Indigènes dans la communauté des Boraris, dermatoglyphique, qualités physiques.

PERFIL ANTROPOMÉTRICO Y DERMATOGLIFICO DE LOS INDÍGENAS BORARI DE LA VILLA DE ALTER-DO-CHÃO EN SANTARÉM-BRASIL

RESUMEN

Objetivo: Identificar el perfil antropométrico y dermatoglifico en los indios de la comunidad de los Boraris (Santarém-Brasil). Metodología: La muestra ha sido compuesta de 24 hombres y 21 mulleres (n=45, 35,4±19,4 años de edad). Para la coleta de los dados, el protocolo de la Dermatoglifia (CUMMINS; MIDLO, 1961) ha sido utilizado. Los resultados han sido procesados través de los recursos de la estadística descriptiva, con la utilización de los programas Excel (Microsoft for Windows – 2007) y Bioestat® 5.0. El teste t de Studant para las variaciones entre los géneros ha sido aplicado. Resultados: Ha sido observado que para las medidas antropométricas, el sexo masculino ha presentado promedia de la masa corporal y estatura más elevada que el femenino (masculino: 63,3±17,7 Kg y 1,55±0,14 m; femenino: 57,7±13,8 Kg y 1,48±0,06 m). Ya los valores del Índice de la Masa Corpórea (IMC) han indicado sobrepeso entre los Boraris, principalmente en el género femenino (IMC=26,2±5,9 Kg/m²) do que en el masculino (IMC=25,4±4,7 Kg/m²). Entretanto, solamente la variable estatura ha presentado diferencia estadística (p=0.0092). Ha ocurrido un comportamiento estándar en la cuantidad de líneas de los dedos en ambas las manos, donde SQL1>SQL2, SQL2<SQL3, SQL3<SQL4, SQL4>SQL5 (p=0.4637). Los percentiles de los diseños han sido: L=67%, para ambos los géneros, W= 25% (masculino) y 21% (femenino) y A=8% (masculino) y 12% (femenino) (p=0.4326). Los valores del SQTL y D10 (105,1±42,2; p= 0.4982 y 11,4±3,5, p= 0.5371) han caracterizado en la muestra la predominancia del desarrollo de las cualidades físicas de velocidad y fuerza explosiva, demostrando bajos nivel de coordinación y endurance. Las fórmulas digitáis más frecuentes han sido ALW (22,2%), 10L (24,4%) y W>L (22,2%). No han sido observadas diferencias estadísticas entre los géneros (p=0.6843). Conclusión y Recomendación: Nota-se que la muestra de los indígenas Borari de Alter-do-Chão (Santarém-Brasil) ha presentado para las variables antropométricas índices de sobrepeso y baja estatura. Para las variables dermatoglificas, ha habido la predominancia del diseño presilla y la predominancia de las cualidades físicas de velocidad y fuerza explosiva. Recomienda-se, así, la realización de estudios similares con otros grupos étnicos a fin de caracteriza-los cuanto sus trazos genéticos, través del método dermatoglifico.

PALABRAS CLAVES : Indígenas Borarí; Dermatoglifia, Cualidades Física.

PERFIL ANTROPOMÉTRICO E DERMATOGLÍFICO DE INDÍGENAS BORARI DA VILA DE ALTER-DO-CHÃO EM SANTARÉM-PA

RESUMO

Objetivo: Identificar o perfil antropométrico e dermatoglífico nos índios da comunidade dos Boraris (Santarém-Pa). Metodologia: A amostra foi composta de 24 homens e 21 mulheres (n=45, 35.4±19.4 anos de idade). Para a coleta de dados, utilizou-se o protocolo da Dermatoglifia (CUMMINS; MIDLO, 1961). Os resultados foram processados através de recursos da estatística descritiva, mediante utilização dos programas Excel (Microsoft for Windows – 2007) e Bioestat® 5.0. Foi aplicado o teste t de Studant para as variações entre os gêneros. Resultados: Foi observado que para as medidas antropométricas, o sexo masculino apresentou média de massa corporal e estatura mais elevada que o feminino (masculino: 63.3±17.7 Kg e 1.55±0.14 m; feminino: 57.7±13.8 Kg e 1.48±0.06 m). Já os valores do Índice de Massa Corporal (IMC) indicam sobrepeso entre os Boraris, principalmente no gênero feminino (IMC=26.2±5.9 Kg/m²) do que no masculino (IMC=25.4±4.7 Kg/m²). Entretanto, somente a variável estatura apresentou diferença estatística (p=0.0092). Houve um padrão de comportamento na quantidade de linhas dos dedos em ambas as mãos, onde SQL1>SQL2, SQL2<SQL3, SQL3<SQL4, SQL4>SQL5 (p=0.4637). Os percentuais dos desenhos foram: L=67%, para ambos os gêneros, W= 25% (masculino) e 21% (feminino) e A=8% (masculino) e 12% (feminino) (p=0.4326). Os valores de SQTL e de D10 (105.1±42.2; p= 0.4982 e 11.4±3.5, p= 0.5371) caracterizam na amostra a predominância do desenvolvimento das qualidades físicas de velocidade e força explosiva, demonstrando baixos níveis de coordenação e resistência. As fórmulas digitais mais freqüentes foram ALW (22.2%), 10L (24.4%) e W>L (22.2%). Não foram observadas diferenças estatísticas entre os gêneros (p=0.6843). Conclusão e Recomendação: Nota-se que a amostra de indígenas Borari de Alter-do-Chão (Santarém-Pa) apresentou para as variáveis antropométricas índices de sobrepeso e baixa estatura. Para as variáveis dermatoglíficas, houve a predominância do desenho presilha e a predominância das qualidades físicas de velocidade e força explosiva. Recomenda-se, assim, a realização de estudos similares com outros grupos étnicos a fim de caracterizá-los enquanto seus traços genéticos, através do método dermatoglífico.

PALAVRAS-CHAVE: Indígenas Borarí; Dermatoglifia, Qualidades Física.

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