There are three types of digital: A (Arco, without deltas), L (stab, has only a delta) and W (Whorl, two deltas), are the dermatogliphys method is to use fingerprinting to identify possible genetic predispositions to certain basic physical valences and also fiber types (BEIGUELMAN, 1995).

There are three types of digital: A (Arco, without deltas), L (stab, has only a delta) and W (Whorl, two deltas), are classified as qualitative variables.
Figure 1: Types of digital drawings of the fingertips (NISHIOKA, DANTAS, FERNANDES FILHO, 2007)

The quantitative variables are the values which are the sum of the total number of lines (SQTL), and the delta index (D10) that compose the number of deltas found in digital.

Several studies have tried to prove the dermatoglyphy profile of various types, such as futsal (DANTAS, 2001); beach football (FAZOLO et al, 2005), volleyball (FONSECA et al, 2008), ballet dancers (NISHIOKA, DANTAS; FERNANDES FILHO, 2007).

With these scientific findings of each specific sport, looking more economically and with greater accuracy to detect possible talent to achieve high performance, and have greater knowledge of the physical aspects of each athlete.

The Paddle is a little known sport in the country, which has gained more and more space, especially in the south and southeast, where the vast majority of athletes practicing. It features a confederation and state federations of Rio Grande do Sul, Santa Catarina, Paraná and São Paulo to promote the growth of the sport.

Worldwide 25 countries have federated the World Federation of Paddle, having greater dominance in the American and European continents (PADEL, web).

The mode is very similar to tennis, having the same scores with some more specific rules (PADEL, web). The court has 200m² (20m x 10m) with walls at the back and railings on the sides, always played in pairs.

The ball is identical to the tennis racket and is lower with carbon material and glass fiber, up to 38mm thick. The service is done with a bounce to the line of the pelvic girdle, launched the opponent on its diagonal (PADEL, web).

Unfortunately, being a sport with low popularity, it is poor in scientific articles, making the most physical trainers be based on tennis training methodology, adapting to the paddle.

METHODOLOGY

The methodological procedures of the research are of nature qualitative - qualitative characterized by cross data collection.

Given the nature of the research, we opted for the use of the protocols: dermatoglyphy of Cummins and Midlo (1942, p.257); stature and body mass according to Fernandes Filho (2003, p. 33 - 35). The subjects involved are in Curitiba Padel, located at Street Manoel Hygino dos Santos, 157 - Gaúra, Curitiba - PR.

The samples were composed of 20 professional paddle players, who participated voluntarily signing the consent form. Clarified, with the inclusion criterial: be competing in the 1st category in Brazilian Championship of Paddle, which was held in Curitiba Padel in the city of Curitiba - PR; and being male. Research will be excluded subjects who do not wish to participate or did not contemplate the inclusion criteria.

Was collected height and body mass of individuals first and second time, to distinguish dermatoglyphy profile, we used the Cummins and Midlo protocol, which is caught digital two hands of athletes using a paint where the researcher painted the fingertips of the samples with a small paint roller, and then staked out a role for the collection of digital to be done to dermatoglyphy analysis.

The data collection was performed after approval by the Ethics Committee of the University of Joinville Region, with the opinion 1,554,411.

The statistical analysis was basic statistics used for the composition of the data as mean (X), standard deviation (s), minimum values and maximum values; we used the Shapiro-Wilk test to check normality of variables and Pearson correlation (r) between variables with normal using the Action 2.9.

DISCUSSION AND ANALYSIS OF DATA

Table 1 shows the data of each sample in relation to body weight, height, BMI (Body Mass Index), and age, and the only non-parametric variable was the body mass.

Table 2 shows the average values of dermatoglyphy professional paddle players of Brazil, showing the qualitative variables that comprise of: arch (A), loop (L) and whorl (W); and the quantitative variables as the total sum of the number of lines (SQTL) and delta index (D10).

<table>
<thead>
<tr>
<th>Age (X)</th>
<th>Body Mass (kg)</th>
<th>Stature (m)</th>
<th>BMI (Body Mass Index)</th>
</tr>
</thead>
<tbody>
<tr>
<td>s</td>
<td>Maximum</td>
<td>Minimum</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 - Average values and their derivatives dermatoglyphic in professional Paddle athletes

<table>
<thead>
<tr>
<th>A</th>
<th>L</th>
<th>W</th>
<th>D10</th>
<th>SQTL</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>X 65</td>
<td>65</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>s</td>
<td>0,88</td>
<td>0,88</td>
<td>0,88</td>
<td>0,88</td>
</tr>
<tr>
<td>Minimum</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Maximum</td>
<td>2</td>
<td>10</td>
<td>7</td>
<td>17</td>
</tr>
</tbody>
</table>

Table 3 represents the digital formulas of professional paddle athletes for analysis of physical quality predominance.
With greater ALW index and L>W (40% and 35%), characterized that the sample has predominantly explosive force and speed of resistance, respectively. For the study mode fits positively due to the dynamics of the sport, being in a closed court and played in pairs, in a not very spacious.

Fonseca et al (2008) in their study of 28 female volleyball athletes of high performance also corroborated with similar data for the present study, more ALW index, L>W and also W>L, the latter is related to agility (21.4%) which was higher compared to paddle players (5%).

The practice of sport also has set positions, which are divided between right and left. In Tables 4 and 5 shows the average values of the variables per block position. The variable nonparametric found was the arc (A) in both positions, with 10 athletes by position of the sample.

Table 3 - Distribution of digital formulas of professional paddle athletes

<table>
<thead>
<tr>
<th>DF</th>
<th>10A</th>
<th>AL</th>
<th>ALW</th>
<th>10L</th>
<th>L-W</th>
<th>10W</th>
<th>L&gt;W</th>
<th>L&lt;W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution</td>
<td>0%</td>
<td>0%</td>
<td>40%</td>
<td>5%</td>
<td>15%</td>
<td>0%</td>
<td>35%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: Primary (2016)

DF: Digital Formulas

Many practitioners of the sport consider that athletes who play on the left side are more offensive of playing on the right, and instead on defense. When forming a dual which each player has these features achieve a balance between them.

Interesting that the average values of all variables were very close than the full profile, and there is also no difference between the positions. It is also seen similarity in the correlations of SQTL and D10 on the left and right positions, and r = 0.59 and r = 0.55 respectively.

In the study sought to target the dermatoglyphy profiles per game position in women’s handball athletes (CUNHA JÚNIOR et al, 2006) has been a similarity between the pivot and point guard positions; among male sand soccer players (FAZOLO, 2005) wing, defense and goalkeeper.

FINAL CONSIDERATIONS

This study aimed to verify the dermatoglyphy profile professional paddle players and found that have genetic predispositions for explosive speed and strength, and consequently suffers a negative trend in motor coordination.

For an assembly training it is of utmost importance to use the dermatoglyphy as evaluation tool for better fitting of your training cycles, thus better results in competitions.

They should be done studies that seek more information mode, in addition to dermatoglyphy also using other variables such as somatotype, physical tests, seeking greater results in a little sport recognized by the media and weak in research in the scientific realm.

BIBLIOGRAPHIC REFERENCES


TUBINO, Manoel José Gomes. Metodologia Científica do Treinamento Desportivo, 13ª Edição. Rio de Janeiro:
O Pádel é uma modalidade forte na região sul brasileira, porém pouco divulgada no média e pobre em publicações científicas. Possui características semelhantes a do tênis, entretanto a dermatoglifia, através da análise das predisposições genéticas, auxilia para uma melhor montagem do programa dos ciclos de treinamento, além de procurar possíveis talentos. O estudo tem como objetivo verificar qual é o perfil dermatoglipfico dos atletas profissionais de Pádel, comparando os resultados com outros estudios utilizando a dermatoglifia como método de recoleção de dados. Foram selecionados voluntariamente 20 atletas profissionais masculinos de pádel (idade= 28,85 ± 6,18; estatura (m)= 1,80 ± 0,05; massa corporal (kg)= 80,44 ± 8,25), que estavam competindo na 2ª Etapa do Campeonato Brasileiro de Pádel, realizado em Curitiba, PR, utilizando os protocolos de Cummins e Midlo (1961), estatura e massa corporal (FERNANDES FILHO, 2003). Para o análise estatístico foi a utilização do teste de Shapiro-Wilk utilizado para comprovar a normalidade de as variáveis e a correlação de Pearson para comprovar a relação entre duas variáveis paramétricas. O perfil dermatoglipfico foi verificado através de impressões digitais foram: A= 0,65 ± 0,88; L= 6,4 ± 1,88; W= 2,95 ± 1,9; D10 = 12,30 ± 2,3; SQTL = 118,13 ± 23,42, com correlação entre SQTL e D10 r = 0,64. Maior predisposição genética foi verificada pela força explosiva e velocidade, e menor em coordenação. Recomenda-se que apliquem mais estudos sobre a dermatoglifia de outros atletas dentro do esporte, para maior enriquecimento de informações.