Effect of Regular Sports Activity in the Salivary Glands in Short and Long Distance Sprinters for Track and Field Games

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Abstract

Saliva is produced in salivary gland and the human saliva consists of 99.5% water but contains many important substances such as electrolytes. Mucus antibodies to bacteria and various organisms. This study was studied by enzymes which are biological catalysts of different chemical structures. And affect the speed of some reactions without consumption. The importance of this research lies in the role of these enzymes, which are studied in the health of teeth and mouth “isosomiee, hactoferin, Bromine, globin alga” and the percentage of the concentration of these enzymes. Which are of the quantity and quality of saliva produced from the salivary glands? The latter is an acquired by adapting the activity of the sports activity with the training intensity. Such as long - term diseases of the field work of these glands in secretion is very important in the durability of motor performance such as sports activities. By moisturizing the mouth and facilitating the process of breathing and swallow saliva especially that such sports activities rely on the energy … so the study assumes that the long-distance runners have a quality and the amount of salivary secretion useful more than short- distance runners during periods of rest or practice of normal daily life because the saliva of the mouth decreases during the exercise of violent physical exercise this necessarily means that long - distance sprinters enjoy the health of teeth and mouth over short runners to contain their saliva on an enzymatic concentration.

Keywords: Regular sports, salivary glands, short and long distance and sprinters.

Introduction

It is known that the practice of physical activity has immediate and long-term positive functional effects, provided that it is practiced according to the correct training rules. In the beginning or activity of the individual, he feels that he has exerted a great effort to perform.

Accompanied by the resulting muscle spasms and the new work of the functional body organs, but continuity according to the rules and rules of training, whether this physical activity functional adjustments towards the improvement and development in those physical devices in terms of their performance and beyond to Hussein worked glands and sensory centers. In this study, the activity and work of the glands in the human cavity of the human, including "parotid glands, sublingual, sub-jaw" and its role in the secretion of Saliva, a liquid substance in the mouth, which consists mostly of 99.5% water and The remaining 0.5% includes ionic compounds, Sticky substances, sugary proteins, enzymes, other antibacterial agents such as immunoglobulin or lysosomes and antibodies such as lactoferrin. The amount of saliva varies from one person to another and is significantly reduced to drought depending on the type and intensity of sports activity during exercise or racing, in the periods of rest and the exercise of normal daily life, athletes enjoy the quality and proportion of oral saliva ideal compared to individuals who are not practicing sports activities by stimulating salivary glands during physical activity to produce the largest amount of it and this stimulation generates functional adaptations of the glands responsible for the production of saliva and saliva many of the most important.

The study examined the construction of healthy teeth and oral sterilization through immunoglobulin, bu-laurin, lysosome and lactoferrin.[1] That the amount of saliva and its components decrease significantly during the performance of physical effort because there are many studies varied in their results that the amount of concentrations of saliva and its work depends on certain diseases such as diabetes and stress (violent exercise)
and there are other studies proved to increase when the exercise and other not affected and remain constant and our current study is a descriptive study of the enzyme isozyme and lactoferrin, proline, immunoglobulin, the long-term runners have the health of the teeth and the mouth due to the previously mentioned salivary enzymes and their increased concentrations due to functional adaptations of salivary glands resulting from increased.

The stimulation on the secretion of saliva in the exercise of sports activity is one of the factors leading to reduce the amount of the resulting effort, but at rest will be attributed and concentrations ideal, that the activity of sports is one of the important factors in increasing oral saliva After the activity and during rest periods and in the exercise of normal daily work free of physical effort and this necessarily means that the jogging athlete will have long teeth healthy and strong and have a healthy mouth free of harmful bacteria.[2]

**Methodology of Research**

The researcher used the descriptive approach in the method of comparative analysis to suit the natural nature of the study. And long-distance runners who run a free (500 meter) competition(17) athletes and short distance sprint (100 meters) free and the number of (19) athletes from the category of beginners to the province of Babylon ... The sample was selected in a deliberate manner based on the time of their achievement in ascending order up to the sequence (15 runner) for long distances of 500 meters, 15 runner) for short distances of distance of 100 meters and in the same way to become a search community (30 runner).

**Tools and Devices used to Compile Data**

**Laboratory Tools and Materials**
- Kit isosomie enzyme.
- Kit lacto Ferin enzyme.
- Kit Bromine enzyme.
- Kit globin Aig (A) enzyme.
- Antibody.
- Teclorostit.

**Form of Dental Health**

The form was prepared by the professors in dentistry to evaluate the degree of health of the teeth by the method of observation and interview by the specialist “dentist”.

<table>
<thead>
<tr>
<th>Points</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>10</th>
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<td>Dental safety degree</td>
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<td>Extraction of teeth</td>
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<td>Gingivitis</td>
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<td>Dental treatment</td>
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<td>Lost teeth</td>
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<td>The presence of a foreign body between the teeth</td>
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<td>Root tooth extraction</td>
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<td>Jaws mismatch</td>
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<td>Mouth smell</td>
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<td>Gum inflation</td>
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</table>

**Tests used in the Research**

A sample of the saliva for the sample was conducted at 10:00 am after the laboratory
took its course one hour before it was taken. The researcher stressed that the quality and quantity of the breakfast should be unified for all members of the sample because this affects the saliva. Days under one climatic condition and a number of fixed sleep hours, not less than 8 hours with the researcher keen to attend the lab to the laboratory analysis to take a sample of dribble to ensure that the saliva does not affect any other preservative at a rate of four Players a day.

**Results and Discussion**

The presentation of the results of laboratory analyzes of salivary gland secretions and oral and dental health in the members of the research sample represented by long and short distances.

<table>
<thead>
<tr>
<th>S</th>
<th>Concentration of salivary enzyme</th>
<th>Measuring unit</th>
<th>Mean</th>
<th>STD.EV</th>
<th>Mean</th>
<th>STD.EV</th>
<th>(t) value</th>
<th>Tabulated</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Isozyme</td>
<td>Mg / ml</td>
<td>3.006</td>
<td>0.195</td>
<td>4.064</td>
<td>0.171</td>
<td>15.786</td>
<td>Sig.</td>
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<tr>
<td>2</td>
<td>Lactoferrin</td>
<td>Mg / ml</td>
<td>0.751</td>
<td>0.154</td>
<td>0.982</td>
<td>0.061</td>
<td>5.391</td>
<td>Sig.</td>
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<td>3</td>
<td>Proline</td>
<td>Mg / ml</td>
<td>1.053</td>
<td>0.219</td>
<td>1.977</td>
<td>0.178</td>
<td>12.888</td>
<td>2.048*</td>
<td>Sig.</td>
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<tr>
<td>4</td>
<td>Immunoglobulin A</td>
<td>Mg / ml</td>
<td>0.675</td>
<td>0.219</td>
<td>0.923</td>
<td>0.089</td>
<td>4.052</td>
<td>Sig.</td>
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<tr>
<td>5</td>
<td>Degree of dental and oral health</td>
<td>Degree</td>
<td>7.066</td>
<td>1.162</td>
<td>8.666</td>
<td>1.175</td>
<td>3.748</td>
<td>Sig.</td>
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</tbody>
</table>

Below the level of significance (0.05) and degree of freedom (28)

From the above table, we find that there are differences in the arithmetic mean of the study variables for salivary enzymes for short-term sprinters (0.751, 1.053, 0.675), which was less than the concentration of long-distance runners (4.064, 0.982, 1.977), (0.191, 0.154, 0.210, 0.219) and long-distance runners (0.171,061, 0.178,089). These concentrations have a significant role and importance in the cause of oral hygiene and dental integrity.

The study showed that there were also differences in the arithmetic mean for short distance runners (7.066) and standard deviation (1.162), while the mathematical mean for long-distance runners (8.66) and standard deviation (1.175) for the class.

To ascertain the truth of these differences in the results, the researcher used the t-test with its calculated value and all the search variables in the same order (15.786, 5.391, 12.888, 4.152, 3.748), which is larger than the scale of 2.048, gives a real indication that continuous sports activity under low and moderate training stresses increases the efficiency and activation of salivary glands to secrete salivary fluid with good enzymatic concentrations better than high tensile activity and performance period few.

The reason for this is that running long distances makes the salivary glands produce saliva throughout the period of performance and is a prerequisite for its survival because saliva is important to moisturize the mouth and esophagus to facilitate the process of breathing and reduce body temperature and swallowing saliva and these processes play an important role in securing the oxygen energy needed by those who practice. Such as sports activities in addition to the frequent intake of water during the training modules of this activity is a factor other in stimulating the salivary glands to secretion to compensate for what was lost during the exercise or practice.

There are a lot of laboratory experiments confirm the importance of saliva, where it was noted that the removal of salivary glands in the mice caused her teeth necrosis and this occurs when the teeth when the secretion of salivary glands is significantly reduced saliva is important in providing some minerals to feed the tooth before the emergence of calcium and phosphate. In addition, saliva

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forms a layer of salivary proteins called Plaque, which reduces the effect of tooth decay. [3] That the bacteria are found naturally and large in the mouth and the center of a warm and warm, so it must be the first immune defense with a strong germs and this is actually found in the enzymes that work to inhibit (reduce the effectiveness) growth of bacteria, these substances actually play an important role in cleaning the mouth and soften it And inhibit the accumulation of food residues, bacterial cell debris as the immune gluten A plays an important role in determining the bacterial presence such as oral fluorne bacterial fluorne is affected by this enzyme and the rate of saliva flow and this enzyme helps to heal wounds at the extraction of the tooth [4]. The enzyme lactoferrin, which binds iron, inhibits the growth of bacteria and lirozum by dissolving the walls of bacteria and proline, forming enamel, calcium bonding [5].

Figure1: Show the computational and standard deviations of salivary enzyme concentrations (isozyme, lactoferrin, proline, immunoglobulin A, laxative (5000 m free), racetomy (100 m freestyle)

Conclusions and Recommendations

- That low-intensity, long-term sports activity has an effect on functional adjustment of salivary glands during rest periods.
- Increasing the enzymatic concentrations of the salivary fluid of long-runners such as isozyme, lactoferrin, proline, immunoglobulin A) is greater than short-distance runners.
- Long-term runner enjoyed more dental and mouth health than short-term runners due to increased concentrations of the enzymes detected.

References