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The connection between normal breathing and eye blinking

Abstract

The main consult of this research was to check the relation between normal breathing and eye blinking. Totally 130 subjects were the part of this research. We measured the normal breathing rate of subjects by simple method. There must be a digital stop watch. First of all, we give a comfortable position to the subjects. We start counting after 10 minutes of rest, for accurate measurement. We started the stop watch and counted the breathing rate of every subject. Questionnaire was arranged to check the effect of breathing on eye blinking. We asked some question to the subjects and note their answers. This work can arouse the scientist to work more on this article. We made a table and calculate the averages and p values to check the relation. It was concluded that there was no scientific relation among normal breathing rate and eye blinking.

Keywords: breathing, eye blinking, breathing rate, questionnaire

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Introduction

Transfer of air into and out of the lungs is known as breathing (respiration). It helps to exchange the gases within and out of the body's environment. Mostly it brings in O_2 and blushing out CO_2. All the creatures that are aerobic need oxygen for their important process known as cellular process. [1] This process needs oxygen to break the food for getting energy. This energy is used by body's cell. During this breakdown carbon dioxide is produced as a waste and moves out. Through breathing air comes into lungs and it exchanged in alveoli through diffusion process. The circulatory system of body allocates this oxygen to the cells. [2,3] All vertebrates having lungs consist of inhalation and exhalation repetitive cycles. Breathing rate can be defined as number of breathing cycles in one minute. It is vital for life. Some homeostatic mechanisms control automatically the breathing rate in normal conditions. When the partial pressure of carbon dioxide will remain unchanged in the arterial blood it controls the pH of extracellular fluids. To much breathing or less breathing causes the change in partial pressure of carbon dioxide. Due to this change, pH of extracellular fluids changes and cause upsetting symptoms.[4] There is another important function of breathing that it provides the mechanisms for speech, laughter and some other emotions. It is also used for coughing and sneezing. Partial pressure of O_2 and CO_2 is continuously monitored by chemoreceptors. Normal breathing is to much important for living alive.

Automatically opening and closing of eyes is known as eye blinking and is natural physical process of body. Eye blinking have vital role in maintaining the body.[5] Eye blinking rate can be measured through counting the closing and opening of eyelids in one minute. Eye blinking plays an important role to keep eyes clean by producing tears. These tears remove any dirt particles that come into eyes. Eyes are always remaining lubricated due to blinking. Some medicines, eyes disorder and treatments can affect the blinking rate.[6] Too much blinking as well as to much less blinking is disorder. A normal blinking rate is 15to 20 times in a minute. Reading a book or some other thing cause the reduction in blinking. There exists a membrane in reptiles that covers the eyes. They blink through this membrane. Due to dry eyes, blinking can be excessive. Watching on screens with great concentration cause less blinking. Blinking of eyes give some relaxation after watching screens with great care.[7] Increased in eye blinking is due to some irritations through sharp white light and dust.[4] For good health normal blinking is necessary.[8] The main consult of this research was to check the relation between normal breathing and eye blinking.[9]

Materials and methods

Totally 130 subjects were the part of this research. All these subjects were the students of Baha Uddin Zakariya University, Multan, Pakistan.

Breathing rate measuring procedure

There must be a digital stop watch. First of all, we give a comfortable position to the subjects. We start counting after 10 minutes of rest, for accurate measurement. We started the stop watch and counted the breathing rate of every subject. [10] Questionnaire was arranged to check the effect of breathing on eye blinking.

Statistical analysis

We used micro soft Excel for statistical analysis. t. test was also used to get the *p* value. 0.1 was deemed as significant value.

Results and discussion

From Table 1 we got the averages, standard deviation and p values. Male those blink more has average 23.33 while those less blink has 22.82. and p value 0.70 which is greater than standard 0.1 value. Female these blinks more have average of 19.8 while blinks more have 20.39 and p value of 0.62. It was also greater than 0.1. we also check the combined answers and got average of 20.61 those blinks more while those blinks less have 20.88 with p value 0.80. We measured the breathing rate of subjects when they were in calm for better measurement of breathing rate. We check their relation of eye blinking with normal breathing. In our experiment females were more than males. We get the results that there were not significant results between normal breathing and eye blinking. My research will be helpful for scientist to more work on this relation.[11]

Table 1 Interaction of breathing (Means±SD) with eye blinking

Gender(Sex)	Too much blinking	Less blinking	P value
Male (♂)	23.33± 1.52	22.82± 4.69	0.70
Female (♀)	19.8 ±3.48	20.39± 4.62	0.62
Combined	20.61± 3.45	20.88± 4.72	0.80

P=0.1, was significant.

Conclusion

It was concluded that there was no scientific relation among normal breathing rate and eye blinking.

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Conflicts of interest

The author declares there is no conflicts of interest.

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