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Реферати

**РОЛЬ ОСЕВОЙ И НЕОСЕВОЙ
ПЕРИФЕРИЧЕСКОЙ РЕВАСКУЛЯРИЗАЦИИ В
МЕХАНИЗМАХ ПРИЖИВЛЕНИЯ
АНГИОСОМНЫХ ЛОСКУТОВ**

Аветиков Д.С., Стебловский Д.В., Гутник А.А.

Проблема центральной и периферической ревазуляризации на сегодняшний день очень актуальна, так как определяет оптимальное течение послеоперационного периода и сроки госпитализации пациентов. Методики периодического пережима сосудистой ножки и постепенного ее пережима позволяют отсекаеть сосудистую ножку уже на 7 сутки после операции. Методика увеличения площади соприкосновения тканей лоскута с воспринимающим ложем позволяет значительно ускорить скорость периферической ревазуляризации лоскута, что позволяет отсекаеть его сосудистую ножку на 8 сутки.

Ключевые слова: ревазуляризация, ангиосом, артеризированный аутоотсплантат, ревазуляризация.

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**ROLE OF AXIAL AND UNAXIAL PERIPHERAL
SLPICED IS IN MECHANISMS OF
ENGFRAGMENT OF ANGIOSOME OF
SHREDS**

Avetikov D.S., Steblovsky D.V., Gutnyk A.A.

Problem of central and peripheral revascularization for today is very actual, because determines the optimum flow of postoperation period and terminus hospitalization of patients. Methods of periodic bandaging of vascular leg and gradual its bandaging of allow to chop off a vascular leg already on 7 days after operation. Method of increase of area of contiguity of fabrics of shred with the perceiving bed of peripheral revascularization it is considerably to accelerate speed of peripheral revascularization shred, that allow to chop off his vascular leg on 8 days.

Key words: revascularization, angiosom, arterised autotransplantat, revascularization.

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**THE IDENTIFICATION OF THE ACTIVITY OF PEROXIDASE IN APPLES AND POTATOES UNDER
NORMAL AND SALINE CONDITIONS**

Paper presents data on the comparative study of hydrogen-peroxide activity in the apples and potatoes under normal and saline conditions. The highest activity of hydrogen-peroxide is observed in the apples at 1 M NaCl solution, while under the same conditions the highest activity in the potatoes are observed at 0,05 M saline. As for Na₂SO₄, in this variant there is a different picture. Apparently, there is ionic strength (CO₃>Cl>SO₄) here.

Key words: apple, potatoes, hydrogen peroxide, saline.

At present the area of salt-affected soils has increased under the impact of anthropogenic factors. Having a negative impact on plants, salinisation changes the structure and functional activity of the entire plant and its individual organs. Given that over 25% of the soils in a number of countries of the world, including Azerbaijan are in a salt-affected state, a thorough and profound study of the problem of resistance of plants against salinisation acquires great importance. [2].

Thus, the study of the mechanism of impact of salts on the plant organism is of both theoretical and great practical importance. Despite the presence of numerous studies on the resistance of plants against salts [3, 5, 6], a number of physiological problems related to illucidation of impact mechanism of salts on the plant organism remain unsolved yet. At present there are efforts to obtain products more adaptable to saline conditions owing to biotechnology, transgen plants, modification of genes. The researches on salt resistance of plants have extended for the last few dacades in connection with the increase in the demand in food as well as salt-affected soils. [1, 4, 7].

The presence of oxygen in tissues and the indirect support of the relevant enzyme system cause the transformation of phenols into xynons (polyphenoloxidases) which is of great importance in the oxidization and reduction processes. During these transformations the course of the reactions under the conditions can be studied according to the transformation of the colour of the solution by the method of photo-electro-calorimetre. A number of inhibitors affect the course of such oxidization and reduction reactions.

The purpose of work is the study of different densities of salts as an extremal impact. The goal of the work is to detect the inhibiting impact of Cl₂⁻, SO₄⁻ anions in the transformation of polyphenols into xynons.

Material and methods of research. The potatoes and apples were used as the subject of study in comparative identification of the activity of peroxidase. The experiments were conducted under both normal (the control variant) and saline conditions. Different densities of NaCl and Na₂SO₄ solutions (0,05 ; 0,1 ; 0,2 ; 0,4 ; 0,6 ; 0,8 and 1 M) were

used as experimental variant. Hydroxynon and hydrogen-peroxide each 1 ml as well as 7 ml NaCl in different densities were added on 1 ml juice obtained after the apples and potatoes as the subject of study had been made homogenous and diluted. We have measured the kinesis of the optical density indicators of the solutions of both control and experimental variants in photo-electro-calorimetre at 420 nm wave length. The experiments were repeated minimum three times for both control and experimental variants. The findings were registered at 5 minute intervals.

The findings of our experiments and the information in the related literature enable us to characterize a number of physiological and bio-physical changes in apples and potatoes under both normal and saline conditions and to register the ways of conducting studies more perspective from our point of view which are aimed at studying the impact mechanism of salts on the plant organism. It is known that the impact of salts on the plant organism is a very complicated process comprising both osmotic and toxic impacts at the same time. In our opinion, the study of primary physical and chemical changes in cells and the primary reactions of plants under the impact of salts should play more important part in the solution of this significant issue. The findings indicate that even in the least densities of Cl^- anion the impact of salts which is one of the indicators of changing the functional activity of the cell is the increase of the absorption speed of O_2 .

It is obvious that the product of the free oxidization process is not water, but hydrogen-peroxide formed as a result of transmission with two electrons. Actually the concentration of hydrogen-peroxide in the plant cell during the salinisation of substrate has been detected by both us and other authors. The natural reaction preventing the concentration of hydrogen-peroxide – a combination harmful for cells is the increase of activity of the catalyze and peroxidase enzymes dividing hydrogen-peroxide intensively into water and oxygen. However, the obtained findings show that there is no linear dependence between the increase in the activity of these enzymes and the density of the affecting salts. The findings of our experiments targeted at comparative identification of the activity of peroxidase in apples and potatoes under normal and saline conditions indicate that in both apples and potatoes the functional activity of this enzyme in NaCl solution in different densities is lower than in control solution. And in different densities of NaCl solution the indicators of activity of peroxidase were different for both subjects. (Fig.1, Fig.2).

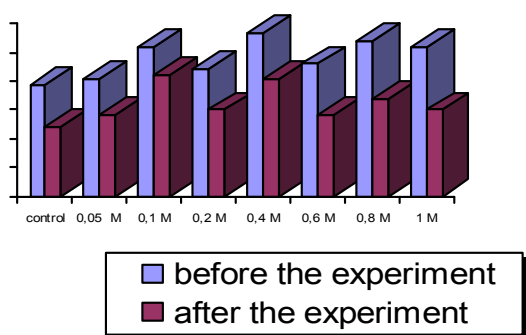


Fig.1. The indicators of activity of peroxidase in different densities of NaCl solution for apples.

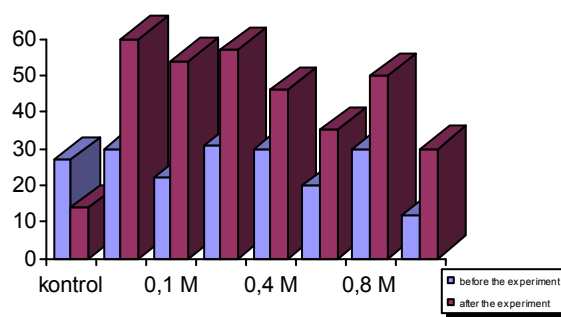


Fig.2. The indicators of activity of peroxidase in different densities of NaCl solution for potatoes.

The findings detected that the indicators of fermentative activity of apples and potatoes depend on different densities in the system of H_2O_2 +hydroxynon+cell extract of NaCl solution. That is, the high densities of NaCl solution increase the activity functionality of peroxidase under the impact of stress factor. In low densities of NaCl solutions the activity indicators of the enzyme are closer to the activity indicators of the control solution. (Fig.3).

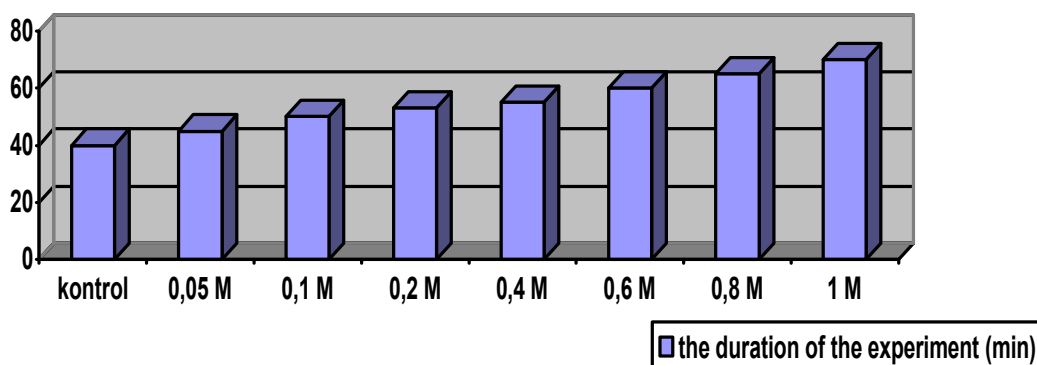


Fig.3. The time spent on the course of the experiment with apples and potatoes under normal and stress conditions.

It is obvious from the course of experiments and the charts that the process transforming polyphenols into xynons under the saline conditions affected by different densities of NaCl solution took place in a longer span of time than in experimental plants. During the course of experiment it was detected that with the increase of the density of the salt this process observed with the change of colour took place more slowly.

Conclusions

That is, on the basis of our observations it was identified that this process took place within 45 minutes in control solution. Unlike this, in different densities of NaCl solution it took 55-70 minutes correspondingly. The longest span (70 minutes) for both subjects was observed in 1 m-density of NaCl.

Prospects of the further researches in the given direction. Studying of possibility of long storage of fruits and vegetables on scientific base.

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Резюме

ОПРЕДЕЛЕНИЕ АКТИВНОСТИ ПЕРОКСИДАЗЫ В ЯБЛОКАХ И КАРТОФЕЛЕ В НОРМАЛЬНОМ И СОЛЕВОМ РАСТВОРАХ

Алиева Н.Ф.

Работа представляет данные по сравнительному исследованию активности перекиси водорода в яблоках и картофеле в нормальном и солевом растворах. Самая высокая деятельность перекиси водорода наблюдается в яблоках в растворе NaCl на 1 М., в то время как при тех же самых условиях самая высокая активность в картофеле наблюдается в солевом растворе на 0,05 М.. Что касается Na₂SO₄, то в этом варианте есть различная картина. Очевидно, что здесь есть ионная сила (CO₃> Cl> SO₄).

Ключевые слова: яблоко, картофель, перекись водорода, солевой раствор.

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ВИЗНАЧЕННЯ АКТИВНОСТІ ПЕРОКСИДАЗИ В ЯБЛУКАХ І КАРТОПЛІ В НОРМАЛЬНОМУ І СОЛЬОВОМУ РОЗЧИНАХ

Алієва Н.Ф.

Робота представляє дані по порівняльному дослідженню активності перекису водню в яблуках і картоплі в нормальному і сольовому розчинах. Найвища діяльність перекису водню спостерігається в яблуках в розчині NaCl на 1 м., тоді як за тих же самих умов найвища активність в картоплі спостерігається в сольовому розчині на 0,05 М.. Що стосується Na₂SO₄, то в цьому варіанті є різна картина. Очевидно, що тут є іонна сила (CO₃>Cl>SO₄).

Ключові слова: яблуко, картопля, перекис водню, сольовий розчин.

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СТАН ГЛОТКОВОГО МИГДАЛИКА У ДОРΟΣЛИХ ІЗ ІНШОЮ ПАТОЛОГІЄЮ ЛОР-ОРГАНІВ

Проведено обстеження 43 дорослих осіб віком 18-55 років із гіпертрофією глоткового мигдалика. Виявлена 100 % наявність супутньої патології ЛОР-органів. Встановлена взаємозалежність розвитку аденоїдиту і гіпертрофії глоткового мигдалика та стану супутньої патології. Відмічена необхідність початку лікування аденоїдиту з санації порожнини носа та носових пазух.

Ключові слова: глотковий мигдалик, лор-органи, патологія.

Вплив захворювань глоткового мигдалика на стан порожнини носа, слухової труби та глотки добре вивчені у дитячій практиці. По між тим, в літературі відсутні данні про частоту гіпертрофії глоткового мигдалика та його вплив на стан ЛОР органів у дорослих. З огляду на те, що носоглотка доступна огляду далеко не у всіх випадках навіть при задній риноскопії, діагностика гіпертрофії глоткового мигдалика та аденоїдитів залишається актуальною проблемою дорослої оториноларингології [1]. Вирішення даної проблеми вимагає значних зусиль науковців і практиків.