



Citogenetic effects induced by sodium nitrite on mitotic division at *Lycopersicum Esculentum* mill.

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The paper presents the influence of sodium nitrite on the cellular division at *Lycopersicum esculentum*. The treatments with sodium nitrite was used in three concentrations: 5%, 1% and 0.1%. The time of action of the respectively solutions was 4 hours and 2 hours, six experimental variants have resulted. The treatments actioned of on tomato radicular meristems, were expressed by chromosomal mutations, particular in ana-telophases, but in metaphases. The types of chromosomal aberrations in tomato radicular meristems, induced by sodium nitrite are very varied: chromosomal bridges, chromosomal fragments, associations between bridges and fragments, retardatory chromosomes, simple and complex multi-polar ana-telophases, micronuclei. Aberrant metaphases consisted in genetically inert picnotic chromosomes, which are spread in the entire mixoplasma. The rate of this types of chromosomal aberrations was differentiated depending on the concentration function and time of action of respective chemical agent. Beside of these types of chromosomal aberrations appear chromatin bridges very thick known with denomination cytomixy, also picnotic nuclei in high rate, genetic inert. Last types of cromosomal aberrations are considered special effects of sodium nitrite. Moreover, sodium nitrite has a inhibitory effect on mitotic division of *Lycopersicum esculentum*, diminish the mitotical index, in correlation with the concentration and time of action by sodium nitrite. The cells reacted differently in each phase of mitotic division to the action of the chemical agent: the proportion of cells in prophase, metaphase, anaphase and telophase is very diminish in compareson by control. The experiment proved that sodium nitrite known as a polluting agent has a real mutagenic potential and inhibitory upon mitotical cells.