

Results

Cell proliferation rate. 24 hours after the first and second session of exposure to the electromagnetic fields, the proliferation rate of the sarcoma cells was slightly decreased, in comparison to those of the control (unexposed) cells ($p < 0.05$). The microscopic examination also showed that the highest percentage of sarcoma cells was under stress (round-shaped cells with abortive pseudopodia and formation of nuclear membrane blebs). The multiplication rate of EMF-exposed cells was dramatically decreased at a percentage higher than 95%, ($p < 0,00001$ compared to the control) after 48 hours of incubation and most of the exposed malignant cells were found either dead (mainly apoptotic) or extremely stressed (round shaped cells, formation of blebs in the outer cell membrane, absence of pseudopodia) (fig.1).

Also, the survived after EMF exposure, sarcoma cells showed a great difficulty in proliferating according to time till confluence (6 days incubation) in comparison the control cells (3 days incubation until confluence) (fig.2 and 3).

Malignant cells exposed for four repeated tumor cells sessions to the described above electromagnetic fields showed only a 20 % decrease of number of cells compared to the control sarcoma cells.