SUMMARY

The present study was conducted on 70 immature female rats aging 4 - 6 week and weighing 20 -40 gm. . The animals were divided into two equal groups ; namely , an experimental group and a corresponding control one . The experimental animals received daily injections with Flebocortid (Hydro-cortisone - Richter) in a dose of 4 mg / 100 gm body weight / day for 14 days . The control animals received corresponding doses of normal saline . Samples of 5 animals , in both groups were sacrificied after different intervals during and after stopping the injection .

At the time of sacrifice , the animals were anaesthetized , the abdominal cavity was opened , and the mesentery was spread over clean glass slides .

The smears were stained with a 1 % cresyl echt violet solution , examined under the oil - immersion objective , about 500 fibroblast nuclei were scored

for each animal , and the percentage of sex chromatin positive nuclei was calculated .

The results revealed that the percentage of sex chromatin - positive nuclei decreased regularly with extrainjection of hydrocortisone ; reaching a minimal score after the 14 th daily injection . However , a rapid recovery was recorded immediately after stoppage of the injection . Morover ,higher and higher percentage were recorded on prolonging the period of recovery to 6 and 11 days from the last 14 th injection . The value reached to nearly the original level - before hydrocortisone administration - 11 days after stoppage of hydrocortisone injection

On the other hand , the control animals were interestingly exhibiting a curve analogus to the experimental one but with higher estimates and a more blunted bottom .

Such results might provide an evidence that the emotional stress status accompaning injection plays a role in the reduction of sex chromatin

frequency . Moreover hydrocortisone was shown to incite a decrease in the sex chromatin count .