

S U M M A R Y

SUMMARY

Role of banana (Musa paradisiaca) in experimental ulcers was described.

1. Experimental gastric ulcers were induced in albino rats by the drugs like :

- a. Aspirin (100 mg/kg, intraperitoneally)
- b. Salicylic acid (100 mg/kg, intraperitoneally)
- c. Paracetamol (100 mg/kg, intraperitoneally)
- d. Indomethacin (25 mg/kg, intraperitoneally)
- e. Prednisolone (30 mg/kg, intraperitoneally)
- f. Hydrocortisone (50 mg/kg, intraperitoneally)

and the methods like :

- g. Restraint stress
 - h. Shay technique
- guineapigs by the drug :
 - i. Phenyl butazone (100 mg/kg, orally)
 - mice by the drug :
 - j. Histamine (33 μ g/mouse, intraperitoneally)

Drugs were given once in a day for consecutive three days.

2. Glandular part of the stomach of all animals developed massive ulcers by the aforesaid drugs and methods.
3. Sundried banana (Musa paradisiaca) powder in a dose of 1 g/kg was given orally to the animals of all ulcer models once in a day for consecutive three days alongwith the ulcerogenic drugs. For "Restraint" and "Shay" models banana (Musa paradisiaca) was given in the same way prior to application of the methods.
4. Banana (Musa paradisiaca) was found "anti ulcerogenic" in all the ulcer models studied since it decreased the incidence and severity (50 - 80 %) of ulcers induced by ulcerogenic drugs/methods.
5. Gastric juice was collected from the animals and rate of gastric secretion, gastric acidity and peptic activity were measured during ulceration as well as after treatment with banana (Musa paradisiaca).
6. Rate of gastric secretion, gastric acidity and peptic activity were not much affected during ulceration and after treatment with banana (Musa paradisiaca).
7. Dissolved gastric mucin of the animals was analysed during ulceration and effect of banana (Musa paradisiaca) diet on it was studied.
8. Level of dissolved gastric mucin in terms of its constituent carbohydrate components viz. total hexose, hexosamine, methyl pentose and sialic acid was found decreased significantly ($p < .01$ to $p < .001$) during ulceration. Banana (Musa paradisiaca), on the other hand, increased significantly ($p < .025$ to $p < .001$) the level of dissolved gastric mucin.
9. Gastric mucosal mucus was collected from the ulcerated stomachs and its amount was estimated. Effect of banana (Musa paradisiaca) on the said parameter was also studied.
10. Level of gastric mucosal mucus of the animals was found decreased significantly ($p < .01$ to $p < .001$) during ulceration. Banana (Musa paradisiaca) diet could increase the level of gastric mucosal mucus at a significant level of $p < .001$.
11. Anti ulcerogenic effect of banana (Musa paradisiaca) was thus not related with offensive factors like acid, pepsin but had relation with defensive parameters like mucosubstances of gastric juice and gastric mucosa.
12. Gastric mucosal mucus was collected from the ulcerated stomachs and the levels of lipid peroxides and DNA were determined. Effects of banana (Musa paradisiaca) on the said parameters was also studied.

13. Level of lipid peroxides in gastric mucosa was found increased significantly ($p < .01$ to $p < .001$) during ulceration. Banana (Musa paradisiaca) diet could decrease this level at the significance of $P < .001$. DNA content of gastric mucosa decreased during ulceration was found increased significantly ($p < .01$ to $p < .001$) after banana (Musa paradisiaca) treatment.

14. Ulcerogenic effect of employed drugs/methods was thus explained in terms of tissue damage which was protected by the treatment with banana (Musa paradisiaca).

