

S U M M A R Y

Role of amlaki (Emblice officinalis Linn.) in experimental ulcers was described.

1. Experimental gastric ulcers were induced in

albino rats by the drugs like :

- a. Aspirin (100mg/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 by the methods like :

- g. Restraint stress
- h. Shay technique

guinea-pigs by the drug :

- i. Phenylbutazone (100 mg/kg, orally)

mice by the drug :

j. Histamine (33 μ g/mouse, intraperitonially)

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 amlaki (Embllica officinalis Linn.) 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 amlaki (Embllica officinalis Linn.) was given in the same way prior to the application of methods.

4. Amlaki (Embllica officinalis Linn.) was found 'antiulcerogenic' 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 determined during ulceration as well as after treatment with amlaki (Embllica officinalis Linn.).

6. Rate of gastric secretion, gastric acidity and peptic activity were not much affected during ulceration and after treatment with amlaki (Embllica officinalis Linn.)

7. Dissolved gastric mucin of the animals was analysed during ulceration and effect of amlaki (Embllica officinalis Linn.) 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 significantly decreased (p \leq .01 to p \leq .001) during ulceration. Amlaki (Emblica officinalis Linn.) diet, on the other hand, increased significantly (p \leq .025 to p \leq .001) the level of dissolved gastric mucin.
9. Gastric mucosal mucus was collected from the ulcerated stomachs and its amount was determined. Effect of amlaki (Emblica officinalis Linn.) on the said parameter was also studied.
10. Level of gastric mucosal mucus of the animals was found significantly (p \leq .01 to p \leq .001) decreased during ulceration. Amlaki (Emblica officinalis Linn.) diet could increase the level of gastric mucosal mucus at a significance level of p \leq .001.
11. Antiulcerogenic effect of amlaki (Emblica officinalis Linn.) was thus explained not on the basis of offensive factors like acid-pepsin but by defensive parameters like mucosubstances of gastric juice and gastric mucosa.

