11. APPENDIX- II

PAPERS PUBLISHED/ PRESENTED FROM THE PRESENT WORK

1) **Rachchh MA, Shah MB, Santani DD, Goswami SS**.  
   “Study of *Benincasa hispida* fruit against experimental gastric ulcer”. Presented at 37th Annual Conference Indian Pharmacological Society (**IPS-2005**) at Science city, Kolkata during 14-16 January 2005. (Annexure 1)

2) **Manish A. Rachchh, M. Pharm; Sunita M. Jain, Ph.D.**  
   “Antulcer and antioxidant effect of *Benincasa hispida* (Thunb.) cogn. fruit extract”. Accepted by American College of Clinical Pharmacy (**ACCP**) and I will present it during Annual meeting of ACCP to be held during 26 to 29th October 2006 at St. Louis, Missouri, USA. (Annexure 2)
ANNEXURE 1

XXXVII ANNUAL CONFERENCE OF
INDIAN PHARMACOLOGICAL SOCIETY (IPS-2005)
SCIENCE CITY, KOLKATA

ABSTRACT

Title of presentation: STUDY OF BENINCASA HISPIDA FRUIT AGAINST EXPERIMENTAL GASTRIC ULCER.

Presenting at Prize Session: No
Code of Prize Session: Nil
Author(s): Rachchh MA1, Shah MB2, Santani DD3, Goswami SS3
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City: RAJKOT State: GUJARAT Pin Code: 360 005.
Presentation Code [OP] Subject Code [GIT]

Please send three copies (1 original & 2 photocopies)

Title: STUDY OF BENINCASA HISPIDA FRUIT AGAINST EXPERIMENTAL GASTRIC ULCER.

Author(s): Rachchh MA1, Shah MB2, Santani DD3, Goswami SS3
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Abstract:

Aim: The present study was designed to investigate the effect of ethyl acetate extract of Benincasa hispida fruit (BHE) against ethanol- induced and pylorus ligation- induced experimental gastric ulcers.

Material & Methods: The BHE was given in the dose of 100 mg/kg, p.o. in both the models and results of those were compared with that of Omeprazole 20 mg/kg, p.o. (reference standard) treated animals. Ulcer-index was a common evaluating parameter in all the models. In pylorus ligation model, acid secretory parameters (total acid, pepsin activity and total acid output) and mucoprotective parameters (total carbohydrate, total protein and mucin activity) were studied.

Results: The BHE has shown significant protection in gastric ulceration as evident from reduction (p<0.05) in ulcer-index in all the models. It has shown increased mucin activity in pylorus ligation model.

Conclusion: Hence, it is suggested that Benincasa hispida fruit possess significant anti-ulcer activity. The mechanism of its activity is associated with strengthening of gastric mucosal barrier.
The XXXVIIth Annual Conference of Indian Pharmacological Society
Science City, Kolkata
January 14-16, 2005

Certificate of Appreciation
Awarded to

Dr. /Mr./Ms. Manish A. Rachchh

In acknowledgement of your Contribution to the Scientific Program of the Conference as
☑ Delegate  ☐ Chairperson  ☐ Guest Speaker  ☐ Volunteer
☑ Presenter of a Paper

In Oral / Poster / Prize Session

Prof. S. N. Banerjee
Organizing Chairperson

Prof. P. K. Debnath
Chairperson
Scientific Committee

Dr. T. K. Mandal
Organizing Secretary
ANNEXURE 2

Abstract

Antiulcer and antioxidant effect of *Benincasa hispida* (*Thunb.*) *Cogn.* fruit extract.

Manish A. Rachchh, M. Pharm¹; Sunita M. Jain, Ph.D.²

¹ S. J. Thakkar Pharmacy College, Rajkot, Gujarat, India.
² L. M. College of Pharmacy, Ahmedabad, Gujarat, India.

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Objective: The present study was designed to evaluate the antiulcer and antioxidant potential of petroleum ether and methanolic extract of fruit of *Benincasa hispida* (*Thunb.*) *Cogn.*

Methods: The antiulcer activity was evaluated using ethanol-induced gastric mucosal damage model, pylorus ligated (PL) ulcer model and cold restraint-stress (CRS)-induced ulcer model in rats. Petroleum ether and methanolic extract were administrated orally at the dose of 300 mg/kg, while omeprazole (reference standard) at the dose of 20 mg/kg, orally. Ulcer index was common evaluating parameter in all the models. Additionally antioxidant potential was evaluated by finding out the level of lipid peroxidation, superoxide dismutase (SOD) and catalase (CAT) in case of CRS-induced ulcer model. Statistical analysis of data was done using one way ANOVA followed by Tukey's multiple range tests. *p*<0.05 was considered as significance limit.

Results: Petroleum ether and methanolic extract showed 49.03% and 67.36% inhibition in ulcer index (UI) respectively, as compared to omeprazole (61.26%) in ethanol-induced gastric mucosal damage model. Both the extract showed 85.26% and 75.96% reduction in UI respectively, as compared to omeprazole (78.69%), in case of PL ulcer model. While 62.13% and 51.52% reduction in UI respectively, as compared to omeprazole (47.83%), in case of CRS-induced ulcer model. The level of lipid peroxidation was significantly lower in case of petroleum ether (0.307 ± 0.002) and methanolic (0.308 ± 0.025) group as compared to control group (0.740 ± 0.056). The level of catalase (CAT) was significantly higher in case of petroleum ether (4.39 ± 0.341) and methanolic (5.18 ± 0.273) group as compared to control group (2.88 ± 0.217). However, there was no statistical significant difference observed in the level of superoxide dismutase (SOD).

Conclusions: Petroleum ether and methanolic extract of *Benincasa hispida* (*Thunb.*) *Cogn* possess significant antiulcer as well as antioxidant property as evident by significant reduction in UI and in lipid peroxidation level while increase in the level of CAT level. Henceforth, more effective than omeprazole in the treatment of peptic ulcer disease.
August 11, 2006

Manish A. Rachchh, M.Pharm., Ph.D.
10 Prahlad Plot
Prahlad Apartment
2nd Floor, Block No. 4
Rajkot – 360 001
GUJARAT, INDIA

Dear Dr. Rachchh:

You are invited to present your paper, “Antiulcer and antioxidant effect of Benincasa hispida (Thunb.) Cogn. fruit extract,” during the Scientific Poster Session at the 2006 ACCP Annual Meeting. The Annual Meeting is scheduled for October 26–29, 2006 in St. Louis, Missouri, USA; the Scientific Poster Session is planned for Sunday morning, October 29, from 8:00 a.m. to 10:00 a.m.

The estimated costs for you to attend this meeting (i.e., international airfare, meeting registration, hotel, meals), at your expense, are about U.S. $5000. ACCP will not be able to provide any support for your participation or assist in securing a visa for your travel to the United States.

We look forward to your attendance at our meeting and will enjoy having an opportunity to meet you in St. Louis.

Sincerely,

Dawn K. Cook
Education and Meetings Coordinator