The NGSMIPS Herald

The Official news letter of the Nitte Gulabi Shetty Memorial Institute of Pharmaceutical Sciences, Mangalore

Volume - 3 Issue - 3 July - September 2012

Indoor Allergies

Contents

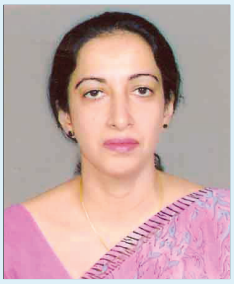
VISION

To build a humane society through excellence in education and health care.

MISSION

To develop Nitte University as a centre of excellence, imparting quality education, generating competent, skilled manpower to face the scientific and social challenges with a high degree of credibility, integrity, ethical standards and social concern.

From the Editor's desk



Every year pharmacy students who pass out from the institutions in India make a bee line for the USA and UK to pursue higher studies and eventually find jobs. Many are successful in doing so but in recent years there has been a drastic decrease in the numbers for reasons that include increasing costs of education abroad, the current recession which is adversely affecting foreign job seekers and non recognition of Indian degrees. Very few companies are ready to hire a foreign graduate because of the candidate's immigration status. The economic meltdown in the USA has led to the closing down and bankruptcy of many companies leading to many layoffs. While little can be done about the latter situation the problem of non recognition of Indian Pharma degrees needs to be addressed. Candidates who graduated from India after January 2003 and wish to practice in the US need to take the Pharm. D course there or possess a five year B.Pharm degree from any accredited US university in order to be eligible for the Foreign Pharmacy Graduate Equivalency Examination (FPGEE) as part of FPGEC certification process. This means that the Indian B.Pharm will not be recognized there and the acceptance of the Indian Pharm.D degree is still in question. Further 1500 hours of internship is mandatory and the student must pass the North American Pharmacist Licensure Examination (NAPLEX) before a pharmacist is eligible for licensure and most states also require a law examination, which usually consists of the Multistate Pharmacy Jurisprudence Exam and a state-specific law exam. All this means that it is terribly expensive for our graduates to be job worthy abroad. The question arises therefore, whether to streamline our B.Pharm or Pharm D. curriculum to satisfy American standards? This might require collaboration from American Universities so that the degrees are recognized. However to satisfy the demands of the pharmaceutical industry in India for qualified persons in production, the B.Pharm degree will continue to be valuable.

Marina Koland, Executive Editor

TOPPERS IN NITTE UNIVERSITY EXAMINATIONS 2011-2012

Deeksha U Suvarna
I B Pharm

Vinitha K
II B Pharm

Meghana Rao S
III B Pharm

Sharol Janice Rodrigues
I M Pharm
(Pharmaceutics)

Sonia Sunny
I M Pharm
(Pharmacology)

Sahadiya Moosa
I M Pharm
(Pharmacy Practice)

Ansu Sara Koruthu
II M Pharm (Pharmacy Practice)

Bhatt Bhavik Kumar R
II M Pharm
(Pharmaceutics)

Gajera Nirav V
II M Pharm
(Pharmacology)

Jisha M S
II M Pharm
(Pharmaceutical Chemistry)

CAMPUS BUZZ

Orientation Program for B.Pharm and Pharm. D students

The orientation program for B.Pharm and Pharm.D students was organized by NGSMIPS on September 3, 2012 at the Nitte Institute of Communications (NICO), Paneer. The event was co-hosted by NICO for the orientation of students of B.A (Mass Communication) as well. Dr. M.S. Moodithaya, Director, Global Initiatives, NET was the chief guest at the occasion which was presided over by Dr. C.S. Shastry, Principal, NGSMIPS. Other guests who were present include Dr, Arunachalam Kumar,

Dr. Arunachalam Kumar lights the inaugural lamp at the Orientation Programme

Director of R&D, Nitte University; Dr. D.Satyanarayana, Director of PG Studies and Research, NGSMIPS; Dr. Rajshekar, Director of Staff Development College, Nitte University; Prof. Rakesh, Faculty, NICO and Col. Subbaiah.

Dr. C.S Shastry welcomed the parents and the freshers to the program. Dr. M.S. Moodithaya spoke about the growth in technology around the globe and how it has impacted education. In his address, Dr. Arunachalam stressed the need for interest in research that can be simple yet make a great difference to health care. Later Dr. C.S Shastry introduced the students and their parents to the scope and curricula of the B.Pharm and Pharm.D course and addressed their questions and doubts.

Ph.D awarded

Mr. Gururaja M.P, Sr. Lecturer, Department of Pharmacology, NGSM Institute of Pharmaceutical Sciences, Mangalore, Karnataka, has been awarded Doctor of Philosophy in Pharmaceutical Sciences for his thesis entitled "Chemical and Pharmacological Investigation of Cow urine" by the Rajiv Gandhi University of Health Sciences, Bangalore. He has worked for his dissertation under the guidance of Dr. K. Ishwar Bhat, Professor and Head, Department of Pharmaceutical Chemistry.

Workshop for teaching faculty of NGSMIPS

A three day workshop in Educational Sciences and Technology for the teaching faculty was conducted by the Staff Development College, Nitte University from July 26 to July 28, 2012. The resource persons were Dr. D. K. Srinivas, Retired Dean, JIPMER, Pondicherry, Dr. V. Kusum Devi, Professor and Head, Dept. of Pharmaceutics, Al-Ameen College of Pharmacy, Bangalore and Dr. Kshama Devi, Professor, Dept. of Continuing Education and Quality Improvement Program Cell, Al-Ameen College of Pharmacy, Bangalore. The objectives of this workshop was to apply Educational Science and Technology in areas of educational objectives, teaching/learning methods, evaluation of learning outcome, improve teaching skills by applying microteaching techniques and to appreciate and practice the role of the teacher as a facilitator of learning. The sessions during the three day period included group discussions, short presentations, microteaching practice and tests with a programme evaluation in the concluding session of the third day. The workshop was well attended by all the members of the teaching staff of NGSMIPS.

B.Pharm students visit Shobhavana and Alva's Ayurvedic Pharmacy

The NGSM Institute of Pharmaceutical Sciences had arranged an educational trip for the of Final year B. Pharm students to Mijar to visit Alva's Ayurvedic Pharmacy and Alva's medicinal garden "Shobhavana" on 27th September, 2012. The students were accompanied by Mr. Santanu Saha, Senior Lecturer and Mrs. Divya Jyothi, Lecturer, Dept. of Pharmacognosy. The "Shobhavana", a beautiful botanical garden boasted of more than 1000 varieties of plants. Apart from the commonly available plants such as Asoka, Udambara, Tulsi, Acacia and Datura there were rare plants such as Rudraksha and endangered species such as Sitale (*Rhynchostylis retusa*). Plants and trees were categorized according to various criteria into *Rashi vana*, *Pushpa vana*, *Nakshatra vana* and *Naga vana*. Dr. Hebbar, staff of the production unit and a lecturer of Alva's Ayurvedic College, guided the students and briefed them about the Alva's Ayurvedic Pharmacy's establishment, journey and the present status in market. He also gave detailed descriptions about the apparatus used in the manufacturing process, such as rotary tablet machine, sigma blender, dryer, multiple effect extractors, tablet coating machine etc. Students were briefed and demonstrated the process of preparation of Ayurvedic formulations, such as *Asava* and *Arista*.

Promotions

Dr. Prerana Shetty, Assist. Professor, Department of Pharmaceutical Chemistry has been promoted to Assoc. Professor with effect from June 21, 2012

Dr. Revana Siddappa B.C., Sr. Lecturer, Department of Pharmaceutical Chemistry has been promoted to Assist. Professor with effect from June 21, 2012

Dr. Gururaja M.P., Lecturer, Department of Pharmacology has been promoted to Senior Lecturer with effect from June 21, 2012

Dr. Himanshu Joshi, Lecturer, Department of Pharmacology has been promoted to Senior Lecturer with effect from March, 2012

Mr. Amit Patil, Lecturer, Department of Pharmaceutics has been promoted to Senior Lecturer with effect from June 21, 2012

Mr. Santanu Saha, Lecturer, Department of Pharmacognosy has been promoted to Senior Lecturer with effect from June 21, 2012.

DEPARTMENT ACTIVITIES

DEPARTMENT OF PHARMACEUTICS

RESEARCH PUBLICATIONS

DR. R. NARAYANA CHARYULU, Professor

1. Development and evaluation of in situ gels of moxifloxacin for the treatment of periodontitis. ***Indonesian J. Pharm***. 2012; 23 (3): 141-146
2. An investigation on effect of various hydrophobic polymers alone and in combination with hydrophilic polymers on matrix tablets of desvenlafaxine succinate. ***Int. J. Res. Pharm. Sci.*** 2012 ; 3(3), 389-397
3. Investigation on release profile of chitosan based polyectrolyte complexes using an antihypertensive agent. ***Int. J. Pharm. Sci. Rev. Res.*** 2012; 15(1) : 88-94

MRS. NISHA GIRISH SHETTY, Sr. Lecturer

1. Investigation of an *in situ* gelling solution of imidazoline drug for ocular administration. ***Int. J. Res. Pharm. Sci.***. 2012; 3(1): 120-126.

MR. AMIT PATIL, Sr. Lecturer

1. Evaluation of Antimicrobial Activity of Aqueous and Hydro-Alcoholic *Curcuma Longa* Extracts against Endodontic Pathogens. ***IOSR Journal of Pharmacy*** 2012; 2(2): 192-198
2. An In Vitro Evaluation of Antimicrobial Activity of Aqueous *Curcuma Longa* Extract against Endodontic Pathogens. ***International Journal of Research Phytochemistry and Pharmacology***, 2(1), 1-6

DEPARTMENT OF PHARMACOLOGY

RESEARCH PUBLICATIONS

DR. C.S. SHASTRY, Professor

1. Effects of acute and chronic administration of the aqueous extract of *lawsonia inermis* leaves on haloperidol induced catalepsy in albino mice. ***Res. J. Phar. Bio. Chem***. ***Sci.*** 2012; 3(3): 1107-1116
2. Comparative evaluation of diabetogenic and mutagenic potential of artificial sweeteners – aspartame, acesulfame-k and sucralose. ***Nitte University Journal of Health Sciences*** 2012; 2(3): 80-84

DR. D. PRASHANTH SHETTY, Professor

Synthesis and anti-inflammatory evaluation of some new 3,6 – disubstituted-1,2,4-triazolo-[3,4-b]-1,3,4-thiadiazoles bearing pyrazole moiety. ***Medicinal Chemistry Research*** 2012; 21: 3272-3280

MR. PRASANNA SHAMA K, Sr. Lecturer

Anticholesteremic and antilipidemic activity of stem bark extracts of *moringa oleifera* in diet induced hyperlipidemic model in rats. ***Int. J. Pharm. Chem. Sci.*** 2012; 1(3): 567-574

MR. ULLAS PRAKASH D'SOUZA, Sr. Lecturer

Anti inflammatory and anti nociceptive evaluation of root extracts of *bauhinia purpurea linn*. ***Int. J. Pharm. Chem. Bio. Sci***. 2012; 2(3): 225-235

THE FRUIT THAT KILLS CANCER

Compiled by: **Dr. Marina Koland**
Professor, Dept. of Pharmaceutics

This humble fruit, a native of the Amazon has been making news recently as a miracle cure for cancer. Commonly known as 'Soursop', it is the fruit of *Annona muricata*, a broadleaf, lowering, evergreen tree native to Mexico, Cuba, Central America, the Caribbean and South America: Colombia, Brazil, Peru, and Venezuela. In India it is commonly known as *Ram Phal* or *Hanuman Phal* and in fact resembles the *Sitaphal* in appearance. Soursop fruit has a slightly larger form, prickly skin, soft, white flesh, and can be eaten directly or had in the form of juice. In Brazil this fruit is known as 'Graviola' and in Spain as 'Guanabana'. For thousands of years the bark, fruit, leaves, roots and flowers of the Soursop plant been used by the local population to cure a number of ills ranging from worms to rheumatism. In fact extracts from Graviola, have been shown in research to inhibit the Herpes Simplex virus, and to have anti-viral, anti-parasitic, anti-rhumatic and cytoxic effects. However it was not until 1996, research carried out by the Purdue University, Indiana, USA revealed that the fruit could be a potential cure for cancer. In vitro studies have indicated, that several of the active ingredients (Annonaceous acetogenins) kill malignant cells of 12 different types of cancer including breast, ovarian, colon, prostate, liver, lung, pancreatic and lymphoma.

It is claimed that the anticancer activity was attributed to the fact that the acetogenins in the plant can distinguish cancerous cells from healthy cells because cancer cells have a consistently higher level of cellular activity. The acetogenins recognize and selectively inhibit the cancer cells. Dr Jerry McLaughlin, Purdue´s lead researcher says that many cancer cells, over time, develop a P-glycoprotein pump to expel the chemotherapy agent before it can work. However Annona chemicals bypass this and kill the cancer cells.

The most recent study by the Catholic University in South Korea has shown that the active ingredients have ´selective cytoxicity´ comparable with Adriamycin, a drug historically used for breast and colon cancer. A third study from South Korea showed that, unlike Adriamycin, there was no negative activity on healthy cells; whilst a fourth study from Purdue (1997) stated that many cancer cells which survive classic chemotherapy by developing resistance to chemicals, were attacked none-the-less by the Graviola agents.

However, no large scale clinical trials were conducted on humans to determine the safety and efficacy of Graviola for treating cancer. Moreover, studies show that use of Soursop can have some adverse effects in some people, especially nerve damage that is similar to Parkinson's disease, which is due to the very high concentration of annonacin. But this has not diminished the faith that people have on this fruit as a miracle cure for cancer.

References:

1. http://www.canceractive.com/cancer-active-page-link.aspx?n=850
2. Nicholas H. Oberlies , Ching-jer Chang , and Jerry L. McLaughlin. Structure"Activity Relationships of Diverse Annonaceous Acetogenins against Multidrug Resistant Human Mammary Adenocarcinoma (MCF-7/Adr) Cells. *J. Med. Chem.*, **1997**, 40 (13), pp 2102–2106
3. http://en.wikipedia.org/wiki/Soursop#Health_benefits

STUDENT FORUM

In the last issue we received an enthusiastic response from students to the questions posed to them. This time, Student Editor, Vivek Ghate put up a couple of questions which would be foremost on their minds. Here are the responses he has received.

Question 1: What do you think should be a Pharmacist's salary as a fresh recruit?

The price rise has made it imperative for an increase in salary in almost every employment. It is no different for the Pharmacy field too. But how much? Here are a few expectations… (All the figures are in Indian Rupees)

1. 8000 – 10000 : Rohan Patel (IV B.Pharm)
2. 20000 – 25000 : Melissa (IV B.Pharm)
3. 10000 – 12000 : Suraiyya (IV B.Pharm)
4. Min of 15000 : Christian Manan (IV B.Pharm)
5. 8000 – 9000 : Piyush (IV B.Pharm)
6. 20000 : Jeevan (IV B.Pharm)
7. 8000 – 9000 : Raksha (III B.Pharm)
8. 15000 : Stephanie (III B.Pharm)
9. 25000 : Melanie (III B.Pharm)
10. 30000 : Shanon (III B.Pharm)
11. 17000 : Leslein (III B.Pharm)
12. 15000 – 25000 : Ritika (II B.Pharm)

All the above expectations are based on the skills, knowledge & time spent in earning a Pharma Degree and enough for a livelihood. But the reality is truly bitter. The Health care service which should be the corner stone of the Nation is now really put to the corner with much less salary than the least mentioned above and in comparison to the sister course graduates.

Question 2: What skills do you think a Pharmacist should have?

In a competitive World only the best on the job on the basis of his skills will survive. When the future- to- be pharmacists were asked the skills they feel to be important in a pharmacist's career, here's what they said…

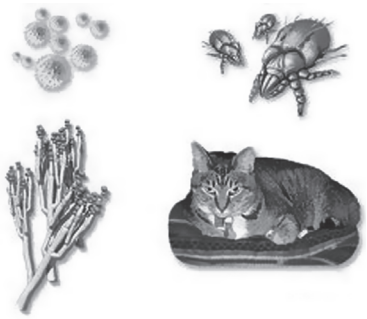
1. Always be ready to gain experience and participate.
   : Piyush (IV B.Pharm)
2. Communication & computer skills.
   : Suraiyya (IV B.Pharm)
3. Good knowledge about commercial medicines & not generic ones!
   : Roma (IV B.Pharm)
4. Be responsible and alert.
   : Stephanie (III B.Pharm)
5. Be honest, sincere and polite.
   : Melanie (III B.Pharm)
6. Of helping nature to fellow pharmacists.
   : Shanon (III B.Pharm)
7. Sound counselor & patient.
   : Meghana (III B.Pharm)
8. Oral communication, Pay attention to details in dispensing and be adaptable.
   : Ritika (II B.Pharm)
9. Good relations with public.
   : Ananth Prabhu (III B.Pharm)
10. Accurate & innovative.
    : Leslein (III B.Pharm)
11. Sound knowledge of the drugs and side effects.
    : Jeevan (IV B.Pharm)

As said by Eric Hoffer : "Where there is the necessary technical skill to move mountains, there is no need for faith that moves mountains!"

LAUGHTER

INDOOR ALLERGENS

Compiled by: **Mrs. Nisha Girish Shetty,**
Sr. Lecturer, Dept. of Pharmaceutics



Allergens are substances that are foreign to the body and can cause an allergic reaction in certain people. Allergens are everywhere in the world around us. Examples of common allergens are pollen, food, and mold.

Your living environment may contain a variety of animal and plant life, most of which can become a source for allergens, the triggers of allergic reactions. Pollens are the main cause of seasonal allergic rhinitis. However, if your nasal stuffiness, sneezing, watery eyes, and constant postnasal drip bother you year-round, then you most likely have non seasonal hay fever, sometimes referred to as perennial allergic rhinitis. This condition is typically caused by indoor allergens found in the home environment.

Indoor allergen facts

- House dust is a mixture of components that can cause allergies.
- Dust mites thrive in warm, humid places.
- Cockroach allergy can be a major factor in serious asthma and nasal allergy.
- Symptoms of hay fever (allergic rhinitis) and asthma can be caused by the inhalation of mold spores.
- The "dander," or skin shedding of an animal, is more potent in causing allergic reactions than the animal's fur or hair.
- About 6% of the population is allergic to cats.
- Indoor plants, especially those that are kept in damp wicker baskets, are a source of molds.

Patients with asthma or allergic rhinitis that are due to dust mites, molds, or other indoor allergens can feel better by taking these simple measures:

- Keep the home cool (between 68 and 72 degrees F);
- Maintain a low humidity (between 40 and 50%); and
- Make certain there is good ventilation.

Just focusing on the basics of a routine and thorough cleaning and temperature and humidity reduction can lead to fewer symptoms and a vastly improved quality of life.

Replacing the carpet with a hard-surfaced floor can eliminate over 90% of dust mites. The following is a list of suggestions on how to make allergy-proofing an easier task. Hopefully, these ideas will lead to other methods you can use to thoroughly clean and maintain your environment allergy free.

Tips

- Avoid ornate furniture. Plain, simple designs accumulate less dust. No open bookshelves; they are great dust-catchers.
- Keep all clothes in drawers or closets, never lying about the room. Enclose wool clothes in plastic zipper bags. Avoid mothballs, insect sprays, tar paper, or camphor. Keep drawers and closet doors closed.
- Remove as much clutter as possible to make cleaning easier. Place hard-to-clean items in closets, drawers, or display cabinets with glass doors.
- When choosing furnishings, it is best to go with wood, leather, vinyl, or rubberized canvas furniture and avoid upholstered pieces. Upholstery easily traps allergens and is much harder to clean. You might try washable slipcovers on existing upholstered furniture.
- Install wood, tile, or linoleum flooring. Limit throw rugs to those that can be easily cleaned in the washer. They should be able to withstand washing weekly.
- Use allergen-proof encasings for pillows, mattresses, and box springs. Tape over zippers to help prevent leaks. Vacuum all casings frequently. Store nothing under the bed.
- Use washable cotton or synthetic blankets, not fuzzy surfaced ones. Use easily laundered cotton bedspreads or coverlets; avoid chenille.
- Install roll-up washable cotton or synthetic window shades. Avoid venetian blinds, mini-blinds, and pleated shades.
- Use washable cotton or fiberglass curtains. Avoid draperies and decorative fabric window treatments!
- Install central air conditioning or window units. Keep windows closed, especially during periods of high pollen counts and windy conditions. Grasses, weeds, and trees tend to pollinate during the early morning hours. Sleep with the windows closed.
- Use Dacron or other synthetics for pillows. Avoid feathers or foam rubber, which traps moisture and promotes mold and dust mite growth.
- Space heaters are preferred over hot air ducts. In homes with forced air heat, use filters or damp cheesecloth over inlets to reduce dust circulation. Change every two weeks. Consult your physician about air purifiers. Keep beds away from air vents.
- Damp dusting using a dampened cloth or an oiled mop will minimize the distribution of dust through the air.
- Wood or plastic chairs are best for baby's room.
- Again, avoid all feather bedding(baby beds).
- Use dust-proof casings for all bedding.
- Stuffed animals should never be placed in the crib and, if used, should be washable. Put most of the stuffed items in a closed chest or closet. Store them in a freezer bag when not in use.

- When it comes to gifts for children, ask for books rather than stuffed animals. Keep the books in a bookcase with doors to help reduce allergens.
- Humidifiers should be reserved for croup. They should not be used routinely since they increase the dust mite and mold counts. If a humidifier is required, the cool water variety is safer than a steam humidifier in terms of burns. Also, be sure to change the water daily if a humidifier is necessary.
- Animal fur is a potential allergen. It's best to keep pets out of the baby's room.
- Overhead mobiles and wall hangings collect dust!
- Baby bumpers should be simple and washable. No ruffles or pleats.
- Ruffled curtains and venetian blinds collect a lot of dust. Vertical blinds are preferable. If levelers or shutters are used, be sure to clean them weekly with a damp cloth.
- The crib should be placed away from air vents.

Indoor endotoxin exposure can be increased by the presence of allergen sources (like food, mould, animals,etc) and decreased with air conditioning and good ventilation. In some homes without animals, where allergen exposure adequate for sensitization still occurs, there are lower levels of house dust endotoxin. The tips mentioned above, will help to keep away unnecessary exposure to indoor allergen and frequent allergic heath problems.

References

- Platts-Mills TAE, Vervloet D, Thomas WR, et al. Indoor allergens and asthma: Report of the third International Workshop. J Allergy Clin Immunol 1997; 100: S3S24
- Hardin BD, Kelman BJ, Saxon A. Position statement. Adverse human health effects associated with molds in the indoor environment. J Occup Environ Med 2003; 45: 470478.

EXPANDABLE OR UNFOLDING TYPE DRUG DELIVERY SYSTEMS

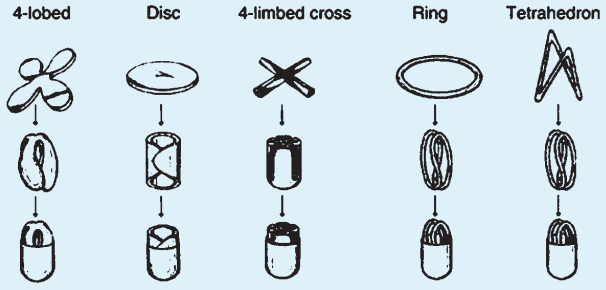
Compiled by: **Ravivarma Vinayak Das**
II Year M.Pharm, Dept. of Pharmaceutics

Expandable gastroretentive dosage forms (GRDFs) have been designed for the past 3 decades. They were originally created for possible veterinary use, but later the design was modified for enhanced drug therapy in humans. These GRDFs are easily swallowed and reach a significantly larger size in the stomach due to swelling or unfolding processes that prolong their gastric retention time (GRT). After drug release, their dimensions are minimized with subsequent evacuation from the stomach. Gastroretentivity is enhanced by the combination of substantial dimensions with high rigidity of the dosage form to withstand the peristalsis and mechanical contractility of the stomach. This approach has not been suitable for a variety of important drugs, characterized by a narrow absorption window in the upper part of the gastrointestinal tract i.e. stomach and small intestine.

The expandable GRDFs are usually based on three configurations: a small ('collapsed') configuration which enables convenient oral intake; expanded form that is achieved in the stomach and thus prevents passage through the pyloric sphincter; and finally another small form that is achieved in the stomach when retention is no longer required i.e. after the GRDF has released its active ingredient, thereby enabling evacuation. The expansion can be achieved by swelling or by unfolding in the stomach. Swelling usually occurs because of osmosis. Unfolding takes place due to mechanical shape memory i.e. the GRDF is fabricated in a large size and is folded into a pharmaceutical carrier e.g. a gelatin capsule, for convenient intake. In the stomach, the carrier is dissolved and the GRDF unfolds or opens out, to achieve extended configuration. The unfolding occurs when polymeric matrices, known or designed to have suitable mechanical properties, are used with some emphasis on appropriate storage conditions of the GRDF.

A study of unfolding devices characterized by different erodibility, mechanical properties, sizes and geometries was conducted by Caldwell and co-workers. They developed geometric configurations were continuous stick, ring, tetrahedron, planar disc, planar multilobe and string. These devices had the following properties: sufficient resistance to forces applied by the stomach, thus preventing rapid passage through the pylorus; allowance of free passage of food while in residence in the stomach; and desired in vivo circumference larger than 5 cm, to ensure gastroretentivity.

Thus, this new approach for controlled and prolonged drug delivery could make a difference in clinical therapeutics as it improves patient compliance. However, this area needs more research to overcome the difficulties in achieving a suitable design that is safe for use without compromising its performance.



References

- KlausnerEA, Lavy E, Friedman M, Hoffman A. Expandable gastroretentive dosage forms. Journal of Controlled Release. 2003; 90(2):143–62.
- Ahmed IS, Ayres JW. Bioavailability of riboflavin from a gastric retention formulation.Int J Pharm. 2007; 330(1 2):146–54.

Orientation Programme for B. Pharm & Pharm D Students, September 3, 2012

Visit to Alva's Ayurvedic Pharmacy & Shobhavana

Book Post