

**IS
SUB-STANDARD
LAB WORK
KILLING
YOUR PRACTICE**

?



**Call ISO Certified
Dental Lab**

WESTMAN

25252774, 5271127, 25258998, 25288998
Email: westman@del3.vsnl.net.in
Or Visit : www.westmandental.com

E mail: dw_2000@rediffmail.com

Website: www.dw2000.org

July-August

Issue-24

Vol -5

Pages-8

Rs 20

Flexipartials: An Alternative Approach In Removable Prosthodontics



Flexible Partial Dentures from Valplast have finally hit the market (commercially available in US since 1954) and have evoked considerable interest from the dentists and the patients as well.

Fixed Prosthodontics has always been the choicest mode of Treatment modality unless indicated otherwise, and rightly so. But it's the Removable Prosthodontics that many dentists find difficult to handle partly because of the kind of curriculum that we have at our undergraduate training program and on top of that, poor and inconsistent laboratory support make the situation even more scary. *Contd. Page 2...*

Negligence by Visiting Doctor Owner Equally liable



Dr. K. K. Chopra

In order to continue with our effort to make you aware about intricacies of law and to safeguard yourself against possible negligence, lest, you are trapped & sued for damages; here we have come up

With another article On vicarious liability.

Contd. Page7....

Flash a Movie Star Smile in Just One Hour



From left: Dr N K Doctor, Dr S P Aggarwal, Dr Paramjeet Singh, Dr Anil Kohli and Dr Mahesh Verma

Novo Dental launch State-of-the-art teeth whitening technology from USA known as Brite Smile Professional teeth whitening. This technology is developed by a former NASA Scientist. This technology uses a combination of proprietary gentle whitening gel and "cool blue light"-shone directly onto the gel-covered teeth.

The chemistry of gel and light creates a whitening effect to erase stubborn tooth stains, including the very resistant tetracycline stain. According to Eminent Dentists, The Brite Smile procedure is clinically proven to white teeth by an average of eight shades and even more for individuals with darker teeth. The treatment takes just over an hour, plus dental consultation and preparation time, and delivers results that can last for upto two to three years. According to KP Leow, Asia Pacific Vice-President for Brite Smile International, "The days of relying on short-acting whitening toothpastes, wearing take home bleaching trays night after night and undergoing painful laser treatments, are over.

Contd. Page7....

A Message From Editor -in Chief



Prof. C. Bhaskar Rao

Ion behalf of the entire fraternity of Dentistry convey our heartiest congratulations to Professor C. Bhaskar Rao for being elected as the Vice President of Dental Council of India, the elections of which was conducted recently. We are extremely hopeful that Prof. Rao with his vast experience in This profession will be able to carry out the responsibilities of Council in the best possible manner. The fraternity of Dentistry looks forward to Prof. Rao for guidance. In his dynamic leadership, we are sure that there will be a greater sense of togetherness amongst us. We all wish Dr. Rao a very successful tenure as Vice-President of DCI.

Dr. Janak Raj Sabharwal
Editor in Chief

Contd. From page 1..

Flexipartials: An Alternative Approach In Removable Prosthodontics

Limitation of Cast Metal Frameworks

Tooth-borne metal frameworks are equivalent to fixed bridges in performance. But it's the distal extension partial denture situation that poses greatest challenge. Conventional clasp design with distal rest causes severe torque by the rotational forces on the distal abutment especially as the ridge resorbs (Fig 1). Such forces can be taken care of either by special clasp design in otherwise rigid cast metal framework e.g. RPI clasp (Fig 2), RPA clasp, Combination clasp etc. or by breaking the stresses at the junction of saddle and the major connector so as to allow the saddle some movement independent of major connector and other side saddle. Of course, the stress-breaking solutions are very technique sensitive and require invasive procedures. At the same time, they are very exorbitant because of complexity of design and the skill required. There are other limitations of cast metal frameworks e.g.

1. Visible metal clasps are unsightly.
2. Require precise preparation of guide planes, rest seat
3. Require mouth preparation
4. Require recontouring of abutment to relocate the survey line
5. Require very accurate surveying
6. Require modified or altered cast impression in distal extension cases
7. Require routine maintenance, as even the best of the frameworks will lose functionality with gradual deterioration of ridge.

Fig 1

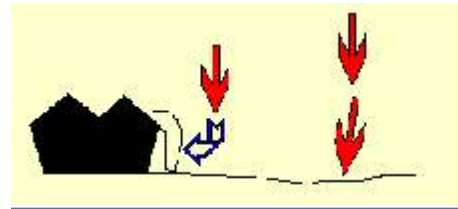
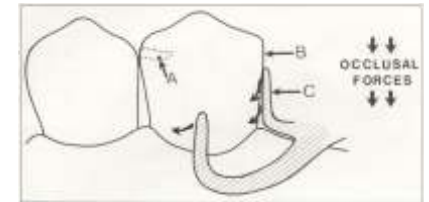


Fig 2



Is flexibility an answer ? : Flexible partial dentures (Fig 3) have got inbuilt flexibility to disengage forces on individual saddle so as to avoid them from transferring to remaining natural teeth and other side of the arch. There are other benefits of flexibility such as intermittent pressure of denture base massages the mucosa and provides physiological stimulation. Also the relining when needed and if not done promptly, damage to abutment teeth is not as fast as with cast frameworks.

Fig 3



Advantages of Valplast Flexible Partial Dentures

1. As metal clasp is eliminated, esthetics is obvious advantage (Fig 4).
2. As color of the material is pink and it is translucent, it blends with the gingival tissue tone and does not give opaque pink look of acrylic.

Fig 4



Valplast as material

Valplast is a type of Nylon. Its thermoplastic, which is injection molded, at just above 300°C. It's denser than acrylic thus has lower water sorption. Its flexure modulus is 470Mpa at body temperature and is virtually **unbreakable** material.

Fig 5



Fig 6



Fig 7



Indications

Valplast partials can be used anywhere and everywhere cast framework is indicated. But in particular, it finds use in when

1. Fixed restoration is out of financial reach of patient (Fig 5).
2. Patient is reluctant to go for invasive procedure (Fig 6).
3. Patient has high esthetic concerns.
4. Patient is unlikely to return for routine maintenance visit.
5. Patient is engaged in high-risk situations such as rugby, security, psychiatric patients etc.

Valplast can and is also used in combination with metal framework as combo dentures (Fig 7) where clasp & saddle is made of valplast and major connector & rests etc. In metal as conventional cast framework so as to have esthetic advantages of valplast in clasp region while adhering to all the principles of cast partials. The only situation where fabrication of flexible partial becomes little tedious is when space available for placement of replacement teeth is far too less occlusocervically as retention of acrylic teeth with in valplast is by mechanical means (by drilling holes in acrylic teeth) & not by chemical means as in case of PMMA. So it requires that much more space to accommodate acrylic teeth.

Contd. From page 2....

Does Valplast work in complete dentures too?

There are definite indications of valplast in complete denture cases

1. Patient is allergic to PMMA
2. There are bilateral inoperable undercuts, which cannot be managed by conventional acrylic dentures without resorting to surgery.
3. When there is history of frequent breakages.

Flexibility is normally, not an advantage in complete dentures as retentive peripheral seal can be broken in function (though thinner and lighter than acrylic denture may help its cause). Also a greater than normal shrinkage Makes it difficult to fabricate.

Designing of Valplast Partial

The most frequently used clasp is **wrap-around clasp** (Fig8). It is placed on the tooth adjacent to the replacement as an extension of saddle around the neck of abutment.

Spur (Fig 9) is placed on the natural tooth next to the abutment close to the marginal gingivae in triangular form so as to look like interproximal papillae.

In severe undercut cases, **High Spur** may be placed on the tooth itself especially in posterior teeth.

Split clasp (Fig10) is essentially a roach type clasp and is used in cases where abutment is flared and retentive arm has to flex a lot before engaging the undercut

Anchor or Finger (Fig11) is occasionally used to engage tissue undercuts away from the saddle as in maxillary labial undercut.

The palatal plate in maxillary cases is more often than not fabricated in horseshoe shape. The coverage of the plate, however, can be extended posteriorly if number of remaining natural teeth is less or if ridge is flat as long span flat ridge partials and complete dentures require more rigidity

Fig 8

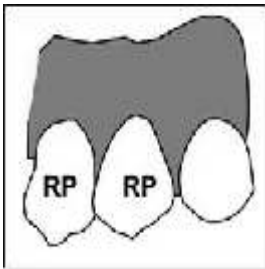


Fig 9

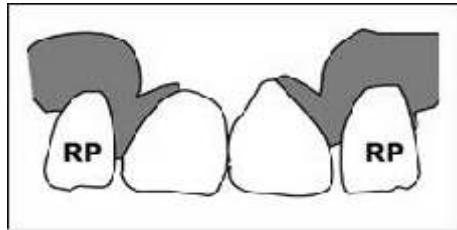


Fig 10

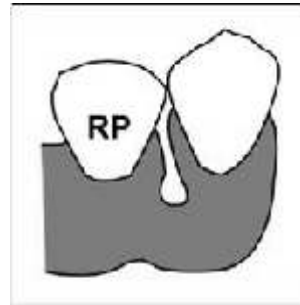


Fig 11

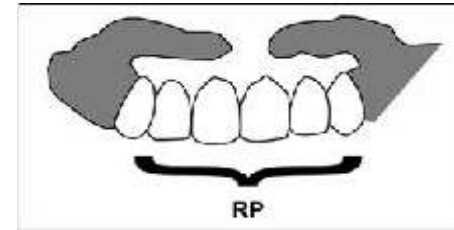


Fig 12



Why no Rest is advisable? : The stop or rest is useful only in a rigid frame to transfer the load to abutment teeth. Rest will only cause undesirable stresses on the abutment teeth if denture has to flex. A rest in a flexible partial is nothing but a mistake.

Insertion : Partial must be placed in very hot water (150°F or more) for a minute prior to insertion and allowed to cool to a tolerable temperature. This process makes the partial as flexible as it would be at body temperature. This minimizes adjustments.

Adjustments : Minor clasp tightening or loosening can be done by heating the clasp again in very hot water and bending it severely in the needed direction. This will purposely warp the area enough to change its position. Grinding should be done as a last resort. Use a Standard Green Mounted Stone (used usually for porcelain), vulcanite burs (acrylic cutters) to adjust Valplast at 20,000 rpm using a rapid, light shaving motion. At higher speed, as more heat generates and valplast being thermoplastic material, it will soften up and may get distorted.

Cleaning : Use of Val-Clean (Fig12), a concentrated denture cleansing powder is strongly recommended preferably in ultrasonic cleaner especially with Indian diet where other denture cleansing powders have not been so effective. Consistent use of Val-Clean will preserve and even restore the intended appearance of the partial.

Stain Resistance : Valplast is denser than Acrylic so its more stain resistant. However, Translucency will show surface deposits on the other side also more easily. Polishing technique is critical to long term stain resistance.

Is it possible to add tooth, to repair and reline? : Of course, Teeth can be added either by welding or injecting to Valplast partials. They can be relined or rebased. Both are laboratory procedures. Relines are less frequent with all-Valplast partials than with metal and acrylic or metal and Valplast combos.

Clinical Steps for Tooth Addition : Clinician should take pick-up alginate impression to lift out case, Make counter-model for bite, Pour the model and forward to the processing laboratory.

Clinical Steps for Reline : Make a closed-mouth rubber-base reline impression, Make a pick-up overall alginate impression, Counter-model is not necessary.

How long do they last? : As long as the mouth undergoes slow, healthy, gradual change, the partial will remain functional. Only drastic or abnormal changes in the mouth require addition, rebase, or a new partial.

Clinical Procedures

Alginate Impression

A preliminary alginate impression is all that is needed for valplast partials. An impression with any non-compressive material will reduce adjustments later

Bite Registration

If required, its done same way as is done in routine partial denture work

Try-In

Insertion

Adjustment and post insertion instructions

Patient Care Instructions

Contd. From page 1....

The liability for the tort committed by another arising out of special relationship can best be understood under following heads -

1) **Principal and Agent** is based on the principle "He who does an act through another is deemed in law to do it himself" thus a principal is vicariously liable for the tort of his agent committed within the course of his authority i.e. within the course of performance of his duties as an agent.

Who is an agent? The basic concept of an agent is a person who by way of contract, by way of request conducts some act or series of acts on behalf of another i.e. Principal, thus a doctor, owner of a clinic calls & request another doctor to perform some surgery on his patient at his (Principal's) clinic and in the course of performing the surgery carelessly causes injury to the patient, then the owner (Principal) will be held vicariously liable. The agency will arise only if the owner has authorised the act or the agent is carrying on the job duly delegated and the principal is in the control of the agents act otherwise he will not be held liable. Principal will be liable as the job is performed wholly or partly on the owner's business or for the owner's purpose. The owner only escapes liability - when he lends it or hires it to a third person to be used for the purpose in which the owner has no concern or interest. Moreover if an agent is not acting within the scope of his authority, the principal will not be held responsible.

2) **Partners:** the liability of the partners is governed by the partnership act & section 26 says-Where for any wrongful act or omission of any partner acting in the course of the business of the firm or which the authority of his co-partners, loss or injury is caused to any person not being a partner in the firm, then the firm is liable to the same extent as the partner so acting or omitting to act". Further the section 25 provides that the liability of the partners is joint or several. From the above section it is clear that if any one of the partner commits any tort in the ordinary course of business of the firm, then all the other partners of the firm are liable for the tort so committed to the same extent as the guilty partner. Thus, partners are vicariously liable to the tort committed by their co-partners acting in the ordinary course of the business of the firm.

3) **Master & Servant** : a master is liable for tort committed by his servant while acting in the course of his employment. The servant is also liable. Their liability is joint and several. This rule is based on the presumption in law that all acts done by the servant in his master's business are done by his masters expressed or implied authority, in fact are the acts of the master. Master is answerable for the wrong of his servant or agent not because he has been authorised or personally represents him because he is handling his master affairs and the master is duty bound to see that his affairs are conducted with due regard to the safety of others.

Who is a servant ? A servant is distinguished from other kinds of agents with reference to the degree of control over him by the master. The degree of control can be ascertained from the fact that whether a person is employed under a "contract of service" or "contract for service." Under the "contract of service" a master has direct control over the servant whom he can order what is to be done and how. If the master cannot or is not in a position to say what is to be done and how, then the person is not a servant. The first test i.e. "What is to be done" to establish master -servant relationship is a must in every case but the second test "how it should be done" is elusive. For example earlier hospital authorities were not held vicariously liable for the activities of their professional staff as they lacked the power of control over the manner how the work is to be done. But now the scene has changed. Now the hospital authorities are held liable for the negligence of their staff including doctors. Thus the second test "how it shall be done" has failed in respect of professional people like doctors, surgeons or person having specialized skills like pilot, captain of a ship because master cannot tell them or order them as to how the work is to be done. Therefore, it has been recognized now that the absence of such control i.e. "how it shall be done" is not conclusive test in respect of "contract of service". In one of the case judge observed that there are four essential elements of a contract of service -

Dental Council of India- A Historical Perspective

A peep into the past will tell that in ancient times India was probably one of the most advanced countries in dental health service in the world. In the old ayurvedic literature of India, details of instruments used for extractions of human teeth could be found. One also finds classification of dental diseases. In the olden days dental diseases were classified in 28 types. The descriptions of dental caries gum diseases and other dental diseases have been given very lucidly in some of the ancient references. The lines of treatment have also been mentioned. Practice of Oral Hygiene was included in the daily rituals. Cleaning of the tongue was included in practice of Oral Hygiene. It is during 1971-1972 that western scientists have shown the importance of cleaning of tongue in prevention against dental decay and periodontal disease.

Ancient scriptures like Vedas, Puranas, inscriptions and paintings and our ancient medical literature all prove that a systematic knowledge of preserving the natural teeth in a healthy state was known to our ancient seers. Dentistry was an integral part of medical science. Sushruta, the ancient Indian sage, is universally acknowledged as the first dental anatomist of the world. He taught dentistry about 600 B.C., Scientifically at Kashi. He and his colleagues, familiar with indigenous anaesthesia and recovery, had invented several surgical instruments. After Sushruta, the Science of Dentistry is known to have been taught at the Taxilla and Nalanda Universities. During the Buddhist period dental surgery had suffered a great setback, as the teachings of Lord Buddha prohibited dissection of the human body, and the touching of dead-body or flesh came to be considered unholy. The art of surgery thus gradually declined in the ancient India mostly because of the aversion of the Brahmans, who had the monopoly of teaching the various sciences in those days, to animal food and to the sacrificial offerings which were too common in the pre-Buddhistic period. This aversion made them shrink from touching the carcasses necessary for anatomical demonstrations. They also shrank from coming in contact with blood, pus, and other matter, which cannot be avoided in performing surgical operations.

The Mughal period also remained a period of darkness for scientific dental surgery. Vaid and Hakims, without much surgical knowledge, continued to be popular. Though Surgery continued to languish, Indian Medical Science showed some signs of revival during the time of Peshwas (1751-1818 A.D.). It was in the early part of the 19th Century that the medical education based on modern system of medicine was started by the East India Company by arranging instructions in some institutions by the then medical practitioners who came from abroad. It was however only in 1920 that a course in Dentistry was introduced for the first time as one of the subjects of study for medical students at the Calcutta Medical College. During the whole 19th century there was no development in this field. The year 1920 will remain as a first milestone to our progress in dental education in India. The first concrete step to organise dental education as a separate branch of medical science was taken in this year when the first full-fledged autonomous dental college was founded at Calcutta by the late Padma Bhushan Dr. Rafuddin Ahmed, the Grand Old Man of Dentistry and rightly called the father of Dental Education in India.

The enactment of the Dentists Act 1948 is the turning point in the history of dental education in the country. The then Viceroy and his cabinet gave their assent to the Dentists Bill in 1947. In accordance with the provisions of the Act, the Dental Council of India was formed on 12th April 1949 by a special Notification issued by the Government of India. The Act provides for a Dental Council at the Centre and formation of State Dental Councils in the states and Union Territories. While the Dental Council of India at the Centre is the overall body to look after the welfare of the dental profession and for that purpose to maintain proper uniform standards of Dental Education in the country, the State Dental Councils are primarily responsible for the maintenance of registration of dentists, dental hygienists, and dental mechanics, and matters arising thereof. For the purposes of regulating the standards of Dental Education in the country, the Dentists Act 1948 empowers the Dental Council of India to (1) inspect any dental institution imparting dental courses, such as Post-graduate Course in Dentistry (MDS), Under Graduate Course in Dentistry (BDS), Dental Hygienists Courses, and Dental Mechanics Courses. The powers to appoint inspectors for this purpose are vested in the Executive Committee of the Council. Secondly, the Dental Council of India is vested with powers to recommend to the Government of India recognition or de-recognition of both Indian and foreign dental qualification obtained by the Indian nationals which might not be specified in any of the three Schedules appended to the Act. Thirdly, the Dental Council of India is the Examining Body for the two statutory examinations envisaged under Section 34 of the said Act.

The Dental Council of India, with prior approval of the Central Government is empowered to lay down Regulations and Curriculum for the various Courses in Dentistry such as M.D.S., B.D.S., Dental Hygienists, and Dental Mechanics. For the first five years, the Act provided that the President of the Council would be nominated by the Central Government. Accordingly, Dr. K.C.K.E Raja, the then Director General of Health Services was the first nominated President of the Council till his retirement on 17-9-1952. Lt. Col. C.K.Lakshmanan who succeeded Dr. Raja as the Director General of Health Services was then nominated as the President of the Council. Dr. R. Ahmed was the first elected President of the Council who was elected as such by the Council on 5-11-54. He was succeeded by Col. N. N. Bery, who was the Vice-President of the Council since its inception in 1949.

Dr. B. Subhaschandra Shetty, President - Aditi & Chairman - Expodent International Releases the call brochure at Grand Hyatt Hotel, Mumbai



The function held at Grand Salon Hotel, Grand Hyatt, Kalina, Santacruz East, Mumbai, dated on 11th June 2005 large number of traders and the Doctors attend to the function. Dr. Shetty expands the Association of Dental Industry & Trade of India (ADITI) function in this country in his address he emphasized the need of Expodent international Indian Dentistry is growing at a rapid speed. We have as on today more than 180 dental colleges imparting Graduate and Post-Graduate education. There are more than 60,000 dentist who are already registered and practicing. Nearly 1500 dental laboratories looking at scenario. There is no conference, which is of great magnitude which is committed to bring this large number of professional to a single platform. All the association in dentistry are open to members. So ADITI has to bring all of them together to expose them not only to the national technology and also to international technology. Keeping this in mind Aditi is organizing this mega event where more than 350 stalls are selected for national and international company to show state of art equipment material instruments and accessories. This mega event will be held at Pragathi Maidan at Hall 12 an s12 A for a period of 3 days i.e., 9, 10 and 11 of December. This show is open to everyone in the dental fraternity which is **absolutely free** not only that everyone will enjoy hospitality of Aditi where Tea, Coffee, Cool Drink, Water everything is free, subsidized canteen for total food and unlimited gift hampers for the delegates from each and every company starting from equipment costing Rs. 15 lakhs to material costing Rs. 1000. It is all done by Vision of making a platform where the dental fraternity can meet debate, discuss, exchange and also finalize their requirement for anything and everything. We also expect large number of Dental Colleges should really want to reach excellence and impart quality education to the students this will be the place where they can really go through the best what they are looking for. Dr. Shetty also emphasized the need for the dental industry to grow in a global economy just like field of IT, Bio-Technology next will be the health Industry Medical Industry which has to play a global role. In view of that we also expect Aditi to play a role may be by manufacturing or bringing high technology from joining with global players by collaborating and also bringing the highest technology by becoming an agent for a international company. This is all possible when we organize the major shows where international companies can assess the potentialities and ability of each and everyone in this country, and they can work in close co-operation. We definitely expect our members to grow to the expected level and contribute their might to this country's economy. Dr. Shetty said Expodent International will be held every year in DECEMBER at Pragathi Maidan. This is going to be an annual affair same time expodent will be held in the month of May or June in rotation at various places like Mumbai, Bangalore, Chennai, Cochin, Hyderabad, Calcutta, Ahmedabad. This is also an annual affair but at various places. Of course this is more of domestic affair only basically Indian companies will participate. Answering to the question posed by Dr Mayakar that is Aditi also should educate dentist with regards to dental material by organizing scientific session on dental material equipment and laboratory which has a great importance in dentistry seldom exposed. In his reply Dr Shetty concord with Mayakar and expressed there is a great need for this type of scientific activities Aditi as already formulated many programme to start with :

- 1) Next expodent will have complete scientific programme by various companies basically with regards to latest technology starting from equipment like Laser to implant to any other material. We shall arrange continuous scientific programme throughout the period of Congress for 3 days.
- 2) Aditi is also proposed to bring out a scientific journal to be distribute free of cost every month to each and everyone dentist and to laboratory which will cover not only clinical scientific papers of course, more orientation for equipment and material science.
- 3) Aditi has proposed to offer 3 scholarships in various universities which will be given to a Post-Graduate student who likes to do research in the field of dental material. We are working for the parameter with regards to quantum of money anyway not less than 25,000 per year. Let me promise Aditi is committed for dentistry, we shall keep working for the better dentistry in this country days to come.

Expodent International India An opportunity to see the best of Dentistry

A decade ago when I started Unicorn Medident, the world was not very keen in Indian Dental Industry as they did not see any significant commercial growth. But today it seems that the same world is looking at us as one of the biggest and fastest growing markets of the world. Many companies have opened up separate marketing departments to cater to Indian Market. And they have a strong reason for doing this. Indian dental economy is growing at above 30% per annum, Indian population is 2nd highest in the world and dental awareness is increasing tremendously in the masses. We have above 80,000 dentists in India and every year around 15,000 young dental graduates are coming up. We have above 2000 dental labs in India. We have here above 200 dental colleges with state-of-the-art infrastructure and imparting dental education of international quality.

India is not only leading the world of dentistry today but also becoming a hub of dental tourism. People from all over the world are coming to India for dental treatment as we are providing world class treatment facilities at 10-20% of the cost in USA or UK. Our Association ADITI is organizing Expodent International India in New Delhi which is the largest trade exhibition in India. Companies from all over the world are participating in this exhibition with their latest product portfolios. Whether you are a dental surgeon, dental student, technician, lab technician, manufacturer or trader. This exhibition has a lot to offer for all of you.

ADITI is doing its best make this show a mega success but this is only possible if we get support from all of you. On behalf of ADITI, I invite all of you to join us at Expodent International India and see for yourself the beauty and benefits of this megashow.

Jai Hind

Shammi Gambhir

Managing Director Unicorn Medident Pvt. Ltd

Org. Secy (NZ)-ADITI

Contd. From Page 1....

In a recently held press conference in New Delhi. Novo Dental join hands with Unicorn-Medident for marketing of Brite Smile in North India. Addressing media persons , **Dr N K Doctor, President, Novo Dental**, who has introduced the technology in India said, " Brite smile has whitened the smiles of more than 700000 patients worldwide and continues to enjoy rapid growth in the world market. It has now been introduced on commercial scale after conducting trials for more than two years in India in which 350 people walked away wearing those perfect smiles." **According to Mr Shammi Gambhir, Managing Director-Unicorn-Medident, Brite Smile is** a wonderful technology and has the potential to replace bleaching in which one has to wear bleaching trays night after night and whitening does not last long.