

Dental Apogee



ISSUE - 2

Biannual Official Newsletter Of K.M.Shah Dental College & Hospital

Sumandeep Vidhyapeeth

An Institution Deemed to be University, Under Section 3 of UGC Act, 1956
NAAC 'A' Grade University with Highest CGPA (3.53) in Gujarat
and Conferred with UGC-CATEGORY-1 status.

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Message From The Associate Editor

"Education is an admirable thing, but it is well to remember from time to time that nothing that is worth knowing can be taught." — Oscar Wilde

Education is the expansion of the human mind, We all need enlightenment to become integrated with a complex society. The education we get lasts for life; its influences - good or bad - stay with us forever.

Hope that this newsletter fulfill the purpose to inform,engage and inspire the diverse readership and help in expanding the horizon of knowledge.

And on this note, we the Editorial Board present you with the August Issue of Dental Apogee - Our Biannual Newsletter.



MESSAGE FROM THE DEAN

Dr. Bhavna Dave (DEAN, KMSDCH)

K. M. Shah Dental College & Hospital has always encouraged all its students to broaden their horizons and push themselves forward to gather maximum knowledge for the benefit of the patients and society. New ideas have always been welcomed by this institute through research work and programmes like evidence based dentistry that we believe cultivates all students to do better. Knowledge is transitional and sharing it becomes a powerful mode of experiencing wisdom. Hence, I would like to request all students to go ahead and read this newsletter and explore various ideas and inventions in this wide world of dentistry. I extend my heartiest blessings to all students, faculty and the editorial board for a great issue.

I hope you all enjoy reading it.



KNOW YOUR SCIENTIST

Most people have heard of Invisalign, the invisible way to straighten teeth with removable aligners, but do you know the history of this innovative orthodontic product?

Align Technology, Invisalign the creators of Invisalign, was founded in 1997 by scientist **ZIA CHISHTI** and Kelsey Wirth in San Jose, California.

Chishti was an adult orthodontic patient when he came up with the idea of Invisalign. He was struggling with a retainer as part of his own treatment, and realized that such an approach could probably be used for the entire orthodontic procedure. Teaming up with Wirth, the two began looking for developers

Chishti and his business partner, Kelsey Wirth, bought a great evolution...they founded Align Technology in 1997 to develop and manufacture the Invisalign braces. In May 2000, the Invisalign braces became available to the public for the first time. These braces were transparent, removable, and moldable braces to straighten teeth.

Rather than a single pair of braces that are repeatedly adjusted, Invisalign braces, a series of clear aligners created by a computer, are worn in succession. Unlike regular braces, Invisalign braces can be easily removed for teeth cleaning, eating, and sports activities.

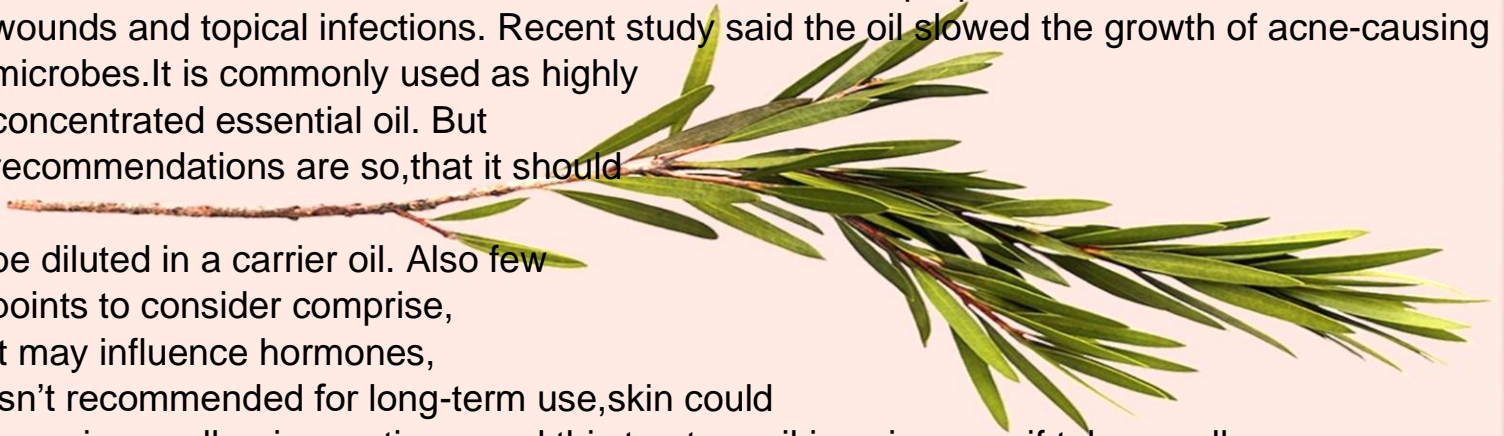
Today, Invisalign is in high demand and is seen not as an alternative to braces, but a fair competitor that offers the same results with a proven, yet different, system.



HERBAL CORNER

The tea tree, which is native to Australia, produces an oil that is long been thought as beneficial for skin conditions, including mild acne, insect bites, small wounds, dandruff, athlete's foot, and other inflammatory skin conditions. But further study into acne and scalp use is needed. There is a research into antimicrobial superpowers of tea tree oil on wounds and topical infections. Recent study said the oil slowed the growth of acne-causing microbes. It is commonly used as highly concentrated essential oil. But recommendations are so, that it should

be diluted in a carrier oil. Also few points to consider comprise, it may influence hormones, isn't recommended for long-term use, skin could experience allergic reactions, and this tea tree oil is poisonous if taken orally.



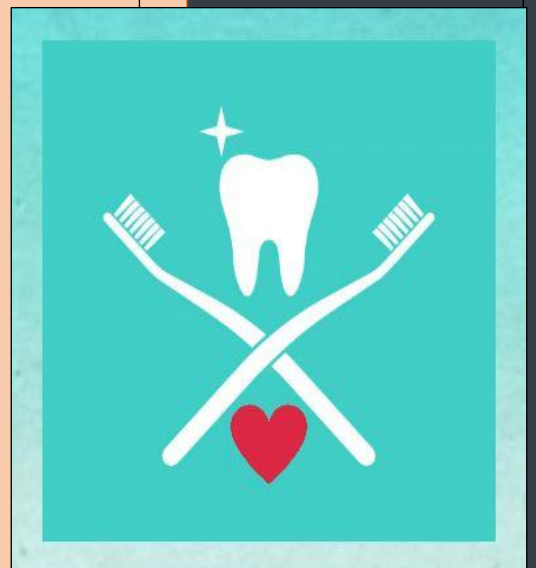
Tea Tree

BRUSH YOUR TEETH TO PROTECT THE HEART

New research finds that brushing the teeth three or more times a day significantly reduces the risk of atrial fibrillation and heart failure.

Mounting evidence is also strengthening the link between oral health and cardiovascular health. Destroying "friendly" oral bacteria that help maintain a healthy and balanced oral microbiome could disrupt blood pressure levels and also lead to hypertension. For instance, some studies have found oral bacteria in the blood clots of people receiving emergency treatment for stroke, and experts have linked severe gum disease with a significantly higher risk of hypertension.

A new study that appears in the *European Journal of Preventive Cardiology* suggests that regular tooth brushing may keep heart failure and atrial fibrillation (A-fib) — a type of arrhythmia — at bay. In their study, Dr Song and team examined atrial fibrillation's associations with both heart failure and poor oral hygiene. They used data from 161,286 people who were part of the Korean National Health Insurance System-Health Screening Cohort. Brushing lowers heart failure risk by 12%. **Brushing the teeth three times or more a day was linked with a 10% lower chance of developing A-fib and a 12% lower risk of heart failure.** The authors conclude New research finds that brushing the teeth three or more times a day significantly reduces the risk of atrial fibrillation and heart failure.





IPS Style Ceram Paste Opaquer

The new paste opaquer for fast and efficient use for FIXED PROSTHETICS REMOVABLE PROSTHETICS

Ready-for-use, fast application and highly esthetic results – this characterizes the new IPS Style Ceram Paste Opaquer. It has a particularly high degree of opacity due to the large proportion of oxyapatite crystals – for restorations that resemble that of natural dentition.

The new IPS Style Ceram Paste Opaquer also fulfils all requirements for achieving individualized shade designs. It is available in all A–D shades, including the colours pink, bleach, white, violet, brown and incisal, and is supplied in a practical dispensing jar. The creamy consistency of this paste has been specially developed for fast, direct application, without additional mixing in advance – for exceptionally efficient use. Oxyapatite crystals are highly reflective; therefore, they provide a particularly high level of opacity in the opaquer layer – for restorations where quality and esthetics is the prime issue.

DO IT BETTER WITH.....

Superior Visualization

Orascoptic, which provides visualization products for dental and other medical professionals, has launched a new product called **OmniOptic**. The loupe allows clinicians to select the best level of magnification for a procedure. OmniOptic supports four magnification powers from 2.5 times to 5.5 times within the same loupe system. This means not having to switch to or purchase a new system for higher magnification, making it a cost-effective and convenient choice for dental professionals. Another innovative product from Orascoptic is their cordless headlight, Spark. It can be used with any eyewear frame or loupe and is comfortable due to its design which evenly distributes weight to reduce pressure on the user's nose.

At only 31.8 grams, it is also lightweight, adding to its comfort level. Spark provides improved visibility through a precise spot light which, through the use of constant current technology, will not diminish as long as the battery is charged.



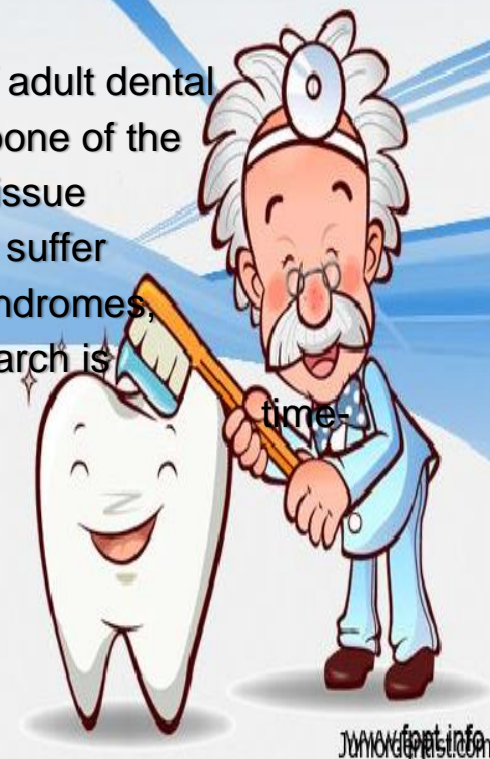
ORASCOPTIC
OMNIOPTIC

STEM CELLS - IS IT A POTENTIAL FUTURE IN DENTISTRY AND A REGENERATIVE MEDICINE?

Judging from the sudden increase of articles not only in scientific journals, but also in the mass media and on the internet, one could say the term “stem cells” has become linked to the word “cure.” Stem cells are undifferentiated cells, with the ability to divide and give rise to identical, undifferentiated cells. Therefore, the stem cells are capable of developing to mature cells, with distinctive figures and specific functions, such as neural and muscle cells. These stem cells have the awesome potential for regeneration and may be used to replace or repair damaged cells, and have the potential to drastically change the treatment of conditions like cancer, Alzheimer's and Parkinson's disease and even paralysis.

Teeth are the most natural, noninvasive source of stem cells. Dental stem cells, which are easy, convenient, and affordable to collect, hold promise for a range of very potential therapeutic applications. Dental pulp stem cells (DPSCs) are having mesenchymal (a type of adult SC) type of stem cells phenotype and they are differentiated into neuron, cardiomyocytes, chondrocytes, osteoblasts, liver cells and beta cells of islet of pancreas. The DPSCs are derived from the various dental tissues such as human exfoliated deciduous teeth, apical papilla, periodontal ligament and dental follicle tissues. The current practices for the replacement of the missing tooth, like implants and classic prosthetic procedures are based on external materials. The main principle is the use of dental stem cells, seeded on the surface of biomaterials that provide the proper stimuli to create a biocomplex.

A recent clinical trial in humans demonstrated the potential of adult dental mesenchymal stem cells attached on collagen to regenerate bone of the mandible. These results are promising and prove that dental tissue engineering can offer a new opportunity to the individuals that suffer from dental diseases or have lost teeth due to pathological syndromes, traumatic injuries or congenital absence. However, more research is necessary since the application of these techniques could be consuming, difficult and expensive and thus not easily accessible to the general public.



WORD SEARCH!!!

A snail's mouth is no larger than the head of a pin, yet it can contain over 25,000 teeth.

The first toothbrush with bristles was made in China in 1498. Bristles from hogs, horses, and badgers were used.

D X F C O E M Q D D D Q U J Q U M A F D M F L J
 E V E K S N O I T C A R T X E H M Q E G W V G G
 N M Q F N Q M K A L G U Z B X O N N I L G T E L
 T E E P W B Z N A B K W N B U V T N V T E S F P
 A D P B O G I T G I R A J T T U N I H N L I U F
 L P T O W N N O K G E T H E R O O E M E S T Q I
 A G L W E E O P G L G G E E I P O D A M U N J S
 S A H A D N W S C H U T S T G N D I H T L E X S
 S C B X L O D D S A H D P F G C M R S N U D W U
 I V G G B G N U R G T E O T G W X U R I C Z M R
 S C D Y U A R D M F C S E Y O C H O O O L Y E E
 T R Y H E B W Q B E R H U A K O O L H P A N D S
 A A A L H Z R O R R I M T R C B T F M P C R T E
 N M A T W N J E R Y N O Z X G F R H V A B T S A
 T C O V Z U G R J A A S D V X E U K P I B M B L
 S O Q C U T T V J I L R F A I U R A Z A I D A A
 T A L R C O H O Y M R O L C J P F Y M L S H M N
 X Y D R O O T C A N A L M D U W R L E Q T T V T
 S G H Z U T T J Z J H U Q E P Y A H X J G X E S
 X T Q I E H S H L L K Y K C R I L K F X G S G H
 G A W X J A Q V T S T H B A E P O S L L A C E R
 K D A S R C L X L I Y F E Y I S M L I T B O M T
 A M W C D H G N I H S U R B N O O Y P P L S F M
 C Q H T E E T M O D S I W S F F I L L I N G S H

Dinosaurs grew new teeth when one was lost or broken.

The average human being produces 100,000 gallons of saliva during their lifetime.

- | | | | |
|-------------|------------------|------------------|-----------------|
| Tooth Ache | Decay | Reception | Recalls |
| Appointment | Dental Assistant | Fissure Sealants | Scale And Clean |
| OPG | Xray | Root Canal | Premolar |
| Canine | Molar | Wisdom Teeth | Surgery |
| Mirror | Exam | Horsham | Dimboola |
| Dentist | Calculus | Smile | Mouthguard |
| Brushing | Dentures | Flouride | Toothbrush |
| Toothpaste | Extractions | Fillings | Teeth |
| Dental | | | |

