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iNFOCUS

Enriching the innerself

March 2021

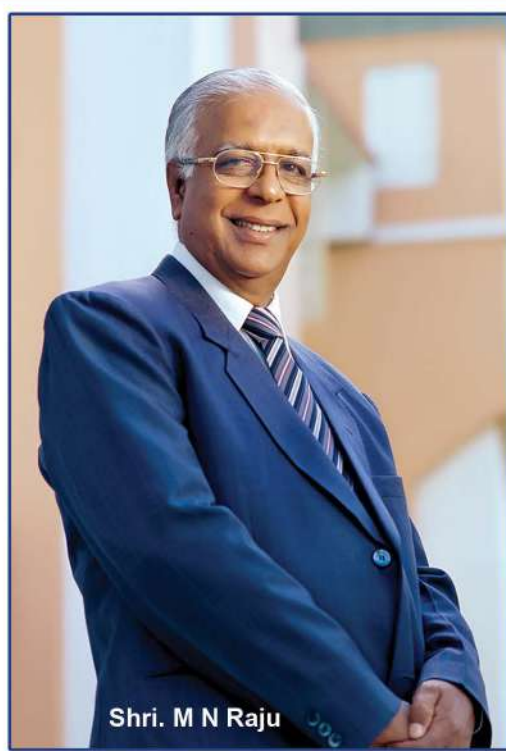
MNR's IN-HOUSE MAGAZINE

International e-conference on Recent Developments in Bio-Pharmaceutical Sciences

MNR COLLEGE OF PHARMACY

MNR Higher Education & Research Academy Campus Sangareddy, Gr. Hyderabad - 502 294, India.

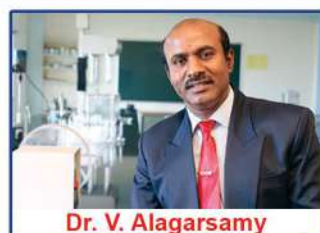
08th February - 2021



Shri. M N Raju



Mr. Ravi Varma Manthena



Dr. V. Alagarsamy



Dr. Carlos Hoyo Vadillo



Dr. M. Selvasankar



Dr. Shashank chetty



Dr. Vishnu Nayak



Dr. Janet Pineda Diaz



Mr. Jagan Mohan

The **International e-Conference** on "Recent Developments in Bio-Pharmaceutical Sciences" held on 8th February 2021 @ MNR College of Pharmacy on virtual platform participated by **Shri M. N Raju** (Speaker View), Chairman, MNR Educational Trust, **Shri Ravi Varma Manthena**, Vice Chairman, MNR Educational Trust, **Dr. V. Alagarsamy**, Principal, MNRCP, **Dr. Carlos Hoyo Vadillo**, Centre for Research and Advanced Studies of the National Polytechnic Institute, Cinvestav, Mexico, **Dr. Shashank Chetty**, Stanford University, USA, **Dr. Janet Pineda Diaz**, Hospital Angeles Lindavista, Mexico, **Dr. M. Selvasankar**, Sidra Medical and Research Centre, Qatar, **Dr. Vishnu Nayak**, The Hebrew University of Jerusalem, Israel and **Mr. Jagan Mohan**, Helmholtz Centre for Infection Research, Germany.



Felicitation Programme Organised by the Management, staff and students to Dr. V. Alagarsamy, Principal, MNR College of Pharmacy being listed among top 2% scientists of the world By the Stanford University, USA.



The Great Soul

The inspiring great soul **Ms. Nalini Reddy** donated her body to **MNR Medical College**. Days before she understood her critical situation she was going through due to cancer. While her health was getting worsen she took a 'bold decision to donate her body. She will remain great for her decision to help the students of MNR Medical College for their research work.

Nalini Reddy worked in **MNR Group** from the year 1992 to 1994. She was working with Bharatiya Vidya Bhavan Public School (BHEL) at the time of her demisal. She was born on 3rd August 1968, a great daughter born to Ashok and Indira Reddy. She had her education in BHEL Higher Secondary School. She completed her B.A.(Hons) in Koti Women's College and M.A.(English Literature) in Vanitha Maha Vidyalaya. She had also received a Bachelors degree in Education (B.Ed.) in Nava Bharat College

of Education. Not only did she had an interest in language & literature but she was also interested in sports. In school she was a star athlete and a state level Basket Ball Player. This unremarkable deed of donating of her body of Nalini Reddy will remain forever in the hearts of students, friends, relatives and many.

Her donation of her body will make her immortal and will remain forever in the hearts of many.

Her last gift is the most precious gift to the society.

May her great and beautiful soul rest in peace.

Editorial.....



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Dear Readers,

Have ambitions and make it come true for you.

If you have to do great things in life, if you want to achieve big things in life, you need to set goals. Dreaming is not only the thing which you do while sleeping. It is the one which we set ourself to accomplish by hard work, determination and smart planning. We are really capable of much more than we think of ourself. We should never under estimate ourself.

We need to remember that we need to dream big and aim high.

As said by Abdul Kalam

Dream, Dream, Dream

Dreams transform into thought

And thoughts result in action.

“Dream is not the thing you see in sleep. But it is something that does not let you sleep”.

When working towards a goal, it is important to have regular checks to see how you are progressing. It is also important to surround yourself with like minded people and who are supportive. Find yourself a mentor who can support you along the way. Because positive influences will have positive results around. It makes a difference when having a friend or mentor who support positively.

When you work towards the dream stay motivated every day, each single minute and second. As reaching yourself to the goal is no one else's responsibility but it is your own.

Taking small steps consistently will eventually lead you to reach your goals over a period of time.

“Always keep in action to make your goals happen”.

For being yourself, for achieving your goal believe in yourself and dream big.

Editor

Make a Difference

The ocean has unnatural beauty
As far as the eye can see.
Its beauty extends over and under
But not even the ocean can survive such a blunder,
As CLIMATE CHANGE.
How it came upon us is not strange,
WE made it happen,
Yet we do not try to make it end.
Instead some try to laugh it away, turn a blind eye.
And in doing so, they are letting our planet die.
They should care, should help, should do their part,
Because this is just the start.
It will wash over us raging and cruel,
So we have to help the world win its duel.
But first hold on and halt,
We need to understand that this is our fault/
Turn the lights off, take faster showers and stop the sink,
But most importantly THINK.
Step up and make a difference,
Get everyone you know involved since,
Every person can help in their own way, every day.
And if you doubt it all you have to do is say
Is, "I'm making a difference are you?
If not, you should help too."

- Hannah Green

YOU ARE YOUR MIND-XLII

Swamy Vivekananda said, “**Look at the “ocean” not at the “waves”**. The whole ocean is at the back of each wave”.

The ‘ocean’ is your mind and the ‘waves’ are the thoughts of your ‘mind’ (both Conscious and Sub-conscious minds). Here we have to understand one important point, that the waves on the ocean are natural and they are neither good nor bad but simply beautiful waves. But your thoughts that they rise from the ocean of your mind, have several colours, purposes, good and bad, dangerous and helpful, selfish and sacrifice nature, small and big, destructive and constructive, useless and useful, professional and non-professional etc.

For Example:-

1. An employee’s attitude is:-

- He tries to bunk office
- He likes strikes for rights
- He tries to exploit juniors
- He likes politics.
- He expects the institution to give him everything.
- He prefers personal gains.

2. But an entrepreneur’s attitude is:-

- He regularly attends.
- He does not like strikes.



Sri M N. Raju
Chairman

MNR Educational Trust

- He works to fulfill his vision.
- He powers juniors and seniors.
- He is sincere in his attempts.
- He likes growth.
- He always thinks for the institution growth.

Not only the attitudes of an employee or an employer are different and it is the case with every individual mind and its attitude. The attitude of mind also depends upon the values in life, that are being given importance by an individual. The top-five values for men are wealth, adventure, achievement, pleasure and being respected.

The minds of the men and women also have different attitudes and purposes.

The mind is divided into two hemispheres, the right hemisphere and the left hemisphere. The right hemisphere is connected with the left side of the body and the left hemisphere is connected with the right side of the body. That means whatever we do with our left side organs and their activities are controlled by the right hemisphere of mind. In the similar way our right

side organs of the body are controlled by the left hemisphere of the mind.

- For women the right hemisphere of the mind dominates and their left organs are under its control.
- For men, the left hemisphere of the mind is more dominating and their right organs are under its control.
- Among women, right hemisphere is more active
- Among men left hemisphere is more active.
- The right hemisphere is intuitive, illogical, imaginative, romantic, caring surrendering, to be protective and mythical.
- The left hemisphere is logical rational, mathematical, scientific, calculative and non-surrendering.

THE FEMALE MIND HAS A GRACE AND THE MALE MIND HAS EFFICIENCY.

- The efficient mind of man is based on the mathematical look out.
- The mind of grace of woman is based on love.
- The basis of man's mind is thinking.
- The basis of woman's mind is feeling.
- Man gets upset when it is said "your ideas are silly".
- Woman gets upset when it is said "Your feelings are silly".

- Man feels happy when it is said "you did a good thing".
- Woman feels happy when it is said "Your feelings are good".
- Man acts as if he can, even when he can't.
- Woman acts as if she can't, even when she can.
- Man is not at ease accepting his weakness.
- Woman is not at ease accepting her strength
- Man experiences love through the doors of the body
- Woman experiences the body through the doors love.
- Man represents the sperm
- Woman represents the ovum (nurturing)
- Man is result oriented
- Woman is process oriented
- He says "come to the point".
- She says "get into the details".
- He likes to be alone in his psychological and physical space.
- She likes company and shares her psychological and physical space.



Dr. Swati Mohan

Indian –Origin Scientist

The historic safe landing of NASA'S (National Aeronautics and Space Administration) Perseverance Rover on the Red Planet made an unforgettable note on the minds of millions of people. The Rover will search for the signs of ancient microbial life, which will advance NASA's Mission to explore the history habitability on Mars. The Rover has a drill that it will use to collect samples of Martian rock and soil, that will be taken to each for analysis.

All this was led by the team and the only woman the Indian – American Dr. Swati Mohan. She led the attitude control system of Mars 2020, she played a pivotal role along with the team of the project - she was the key communicator in the project along with scheduling the mission control and guiding the policies and procedures of the mission in the control room.

Dr. Swati Mohan emigrated from India to the United States at the age of one, She grew up in Northern Virginia – Washington and later



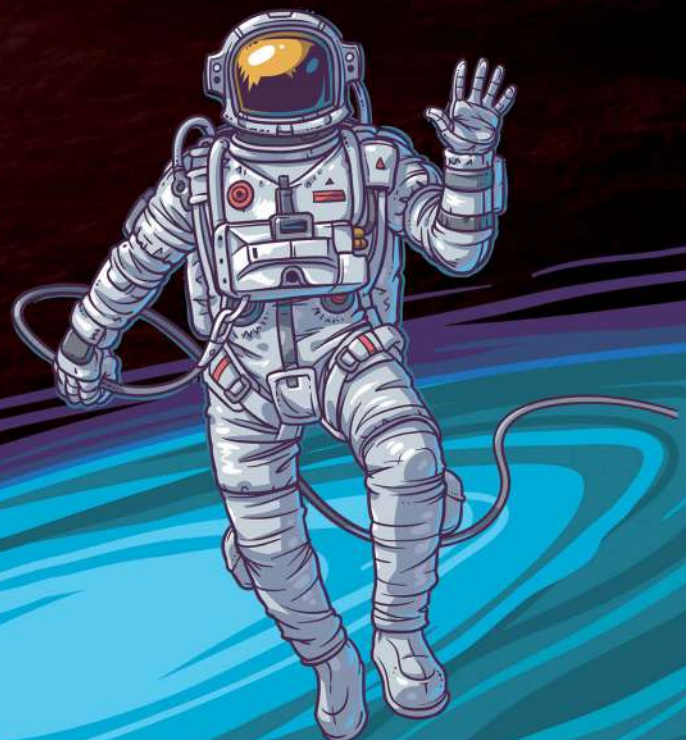
completed her Biological Science from Cornell University in Mechanical and Aerospace Engineering. She received her M.S and Ph.D. degrees from MIT in Aeronautics / Astronauts. She has worked on multiple missions such as Cassini (Mission to Saturn) and GRAIL (A pair of formation flown space craft to the Moon). Currently she is working with NASA's Jet Propulsion Laboratory Guidance, Navigation and Controls (GN & C) operations for Mars 2020 perseverance Rover Mission.

The role played by Dr. Mohan is undoubtedly incredible. For she has made the Rover successfully touch down through the atmosphere of Red Planet. A tremendous note has got millions of people get dragged the attention towards her. A "Bindi between her brows, on the forehead. When asked about it, she answered "I am an Indian as much as I am American". She also said "The bindi says who I am"

Swati Mohan has made the Indian diaspora feel proud and inspire millions of young girls and generations to dream big. She said "Self – belief and confidence are all you need to achieve impossible

President Joe Biden congratulated the NASA team and Dr. Swati Mohan for their historic achievement for the successful landing of six – wheeled Rover on Mars. Biden said "It's astounding for what you did" "You should not underestimate it" he asserted. It's so much bigger than landing perseverance on Mars. It's the true spirit". And I really mean it" Biden said.

On this incredible Journey of Dr. Swati Mohan, who influenced and inspired millions of people with the brilliant, courageous and spirituous act landed in Mars and with a "Bindi landed on the Earth, made an unforgettable print on the hearts of millions of people. Bravo!



Intelligent Structured Intermittent Auscultation (ISIA) - An Essential Midwifery Skill



Mrs. M V VIJAYA PALLAVI

Assoc. Professor, Dept of OBG

MNR College of Nursing

The ability to auscultate and interpret a fetal heart is an essential midwifery skill. Fetal heart auscultation often provides the mother with reassurance and support, despite National Institute of Health and Care Excellence (NICE) (2008) recommendation that routine fetal auscultation should not be provided.



PINARD

When assessing the fetal heart rate, the midwife needs to consider the rate, the pattern and the presence of any deceleration and accelerations. Care must be taken to ensure that the fetal heart rate is being auscultated and is not being confused with the maternal heart rate. Therefore, each time the fetal heart rate is auscultated; the maternal pulse must also be taken and recorded simultaneously.

When auscultating the heart, the beat should be counted for a full minute. Although some Dopplers do display the fetal heart, it is still advised to count the rate rather than relying on an automated display.

The normal range for the fetal heart is between 110–160bpm. While accelerations may be heard in excess of 160bpm, the fetal heart shouldn't exceed 160bpm when counted for a full minute. Decelerations should not be observed when auscultating the fetal heart and, if present, warrant further investigation at all times. The fetal heart rate should be regular in nature, accounting for a normal beat-to-beat variability.

If any ectopic, additional or missed beats are heard, further investigation is required.

Although NICE (2008) does not recommend regular routine auscultation because of its limited clinical value, it does recognise that mothers can be reassured by hearing the fetal heart, so if the mother requests auscultation, this should be performed.

In its guidance on intrapartum care for healthy women, NICE (2014) issues clear guidance as to the frequency of intermittent auscultation. NICE recommends listening to the fetal heart every 15 minute during the first stage of labor and during a passive second stage of labor's. During active second stage of labour, this interval should be decreased to every five minutes. NICE (2014) also reiterates the importance of auscultating for a full minute, after a contraction and clearly identifying the maternal pulse at the same time.

USING A PINARD

While a Pinard may be perceived as an unnecessarily old-fashioned method of

auscultating the fetal heart, the use of a Pinard is, in fact, an essential midwifery skill. A Pinard is the only method that actually allows the midwife to hear the actual fetal heart rather than an electronic interpretation of the fetal heart as occurs with a Doppler or electronic fetal monitoring (cEFM). In order to hear the fetal heart with a Pinard, it needs to be positioned accurately so the midwife is able to clarify whether she is hearing fetal or maternal heart.

Method

1. Ascertain the position of the fetal back. The fetal heart is easiest to auscultate via the fetal back.
2. Ensure that the woman is not having a contraction
3. Place the Pinard over the fetal back. Do not touch the Pinard once in place as the sounds of the midwife's hand on the Pinard can obscure the fetal heart.
4. Place your ear on the Pinard. Firm pressure should be used.
5. Once the fetal heart has been heard, the position of the Pinard can be slightly adjusted in order to maximize the sound.
6. Palpate the maternal pulse and confirm that you are correctly hearing the fetal heart.
7. Count the fetal heart for a full 60 seconds.
8. Document your findings and explain the fetal heart rate to the mother.

If you have been used to using a Doppler or cEFM to auscultate the heart, the sound produced when using a Pinard will be very different: rather than a distinct audible beat, using a Pinard results in a softer sound that is 'felt' as much as it heard.

USING A DOPPLER

The method for using a Doppler is much the same as using a Pinard. The main difference is that, due to the sensitivity of a Doppler, it doesn't need to be placed as specifically as a Pinard. This means it is easier to accidentally auscultate the maternal pulse and confuse this

with the fetal heart. Care should also be taken not to confuse the fetal heart with placental sounds, and the Doppler should be adjusted to ensure a clear, distinct heartbeat is heard. A Doppler has additional benefits in that it can be quicker to auscultate the fetal heart in different positions. Simkin and Ancheta (2011) also suggest that benefits include enabling birth partners also to hear the fetal heart, and also that some Dopplers can be used in water.

Method

1. Ascertain position of the fetal back.
2. Ensure that the woman is not having a contraction.
3. Apply water-based lubricant gel to the Doppler.
4. Place the Doppler on the fetal back.
5. Switch the Doppler on.
6. Listen for a clear distinct heartbeat. If you do not hear a distinct sound and hear 'whooshing', this is likely to be placental sounds. Reposition the Doppler then try again.
7. Palpate the maternal pulse.
8. Count the fetal heart rate for a full 60 seconds.
9. Document your findings and explain them to the mother.



BREAK THE ACHE SAVE THE HEAD



Headache is a painful sensation in any part of the head, ranging from sharp to dull, that may occur with other symptoms. Headache and neck pain are often linked but also often ignored by the people. The most common of them is cervicogenic headache.

WHAT IS CERVICOGENIC HEADACHE?

A cervicogenic headache is a pain that develops in the neck, these are secondary headaches. Secondary headache usually occurs due to other underlying causes like the neck injuries or degeneration, infection.

It's a chronic headache that arises from atlanto-occipital and upper cervical joints. It may even include joints, disc, ligaments and musculatures.

The pain caused by a cervicogenic headache begins in the neck and the back of the headache and then radiates to the front of the head. People usually confuse them with migraines and tension headaches.

The cervicogenic headache is often differentiated from other headaches like migraine and tension headache as it occurs on one side and is increased by neck movements and tenderness in upper 3 cervical spine joints.

It affects both the gender equally and the onset of the symptom is 30 years but the condition is diagnosed at the age of 45 years of age.

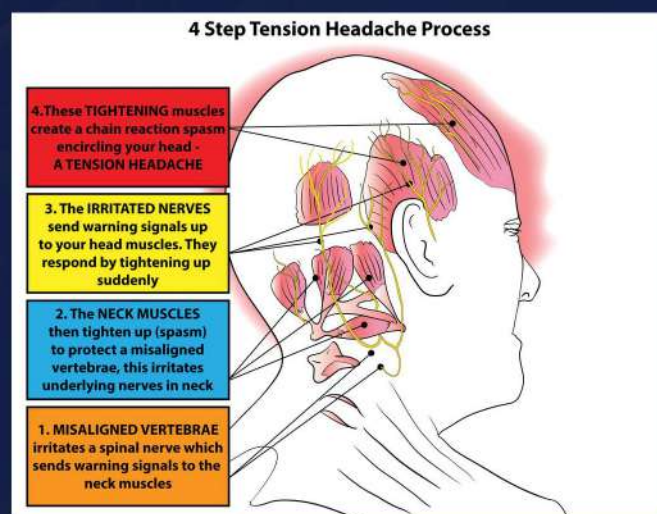
SYMPTOMS OF CERVICOGENIC HEADACHE

- Headache along with neck pain and stiffness
- Reduced motion of neck
- Head pain increased by certain neck movements



Mrs. NAIR ANJALI PREMRAJAN
BPT, MPT (Neuro), Assistant Professor

MNR Sanjeevani College of Physiotherapy



- Sensitivity to light and noise
- One side headache
- Painful points on trapezius, levator scapulae and suboccipital extensors muscles
- Weakness in deep neck flexors
- Increased activity of superficial flexors

DIAGNOSTIC CRITERIA OF CERVICOGENIC HEADACHE

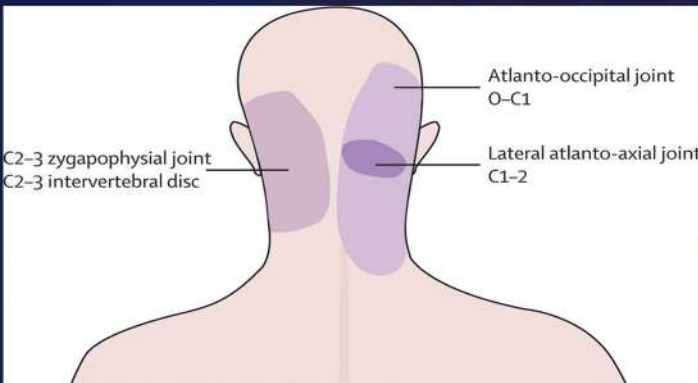
One of the following has to be present: -

- Limitation to passive neck movement
- Changes in neck muscle contour, texture and tone
- Relief in headache with active or passive stretching of the neck muscles

- Abnormal painful points over neck muscles

MECHANISM FOR HEADACHE: -

- Joints from C1-C3 refers the pain associated to various region as shown in figure
- When the nerves passing from back irritated by the surrounding muscles or injured leads to pain in specific places of head like the eye and the back of head.

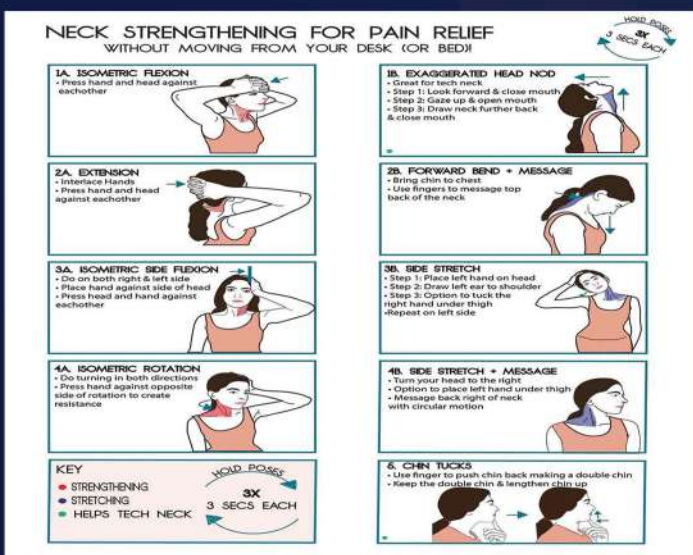


WHAT DOES A CERVICOGENIC HEADACHE FEEL LIKE?

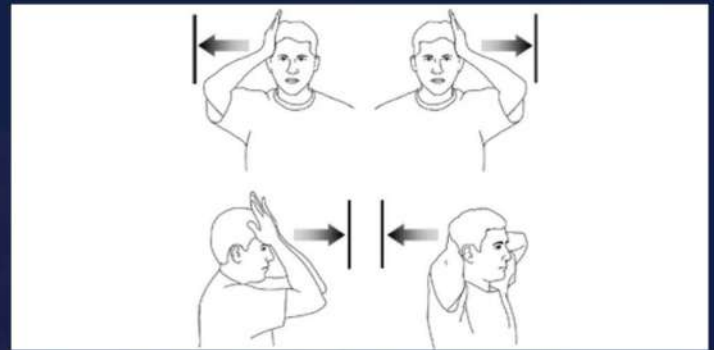
- Headache often in back of head, but also in forehead or behind the eye
- These pains are purely associated with neck pain
- Increase with the neck movement

PHYSIOTHERAPY TREATMENT FOR CERVICOGENIC HEADACHE: -

1. STRETCHING EXERCISES FOR NECK MUSCLES: -



2. STRENGTHENING EXERCISES: -



3. MANUAL THERAPY [SNAG]: -

- SNAG stands for Sustained Natural Apophyseal Glides
- The therapist applies the appropriate accessory zygapophyseal glide while the patient performs the symptomatic movement.
- It is successful when symptoms are provoked by movement
- This result in full range pain free movement of the head

Self-application of SNAG at home: -

- The patient will sit on a chair with his back supported to perform this exercise
- A strap, belt or towel can be used to give the glide for the mobilization
- Here the strap or the end of the towel is placed over the C2 spinous process and the both ends of the strap or the towel are held by the patient
- The strap is held tight, the head is fixed and the slowly a forward glide is given by a forward pull of the strap by both the hands the restricted movement can be performed. This helps in the reduction of the headache at home that are caused due the positional fault of the neck.



DIABETES AND GUM DISEASE



Mrs. DR. RUPARANI.B
Professor, Dept. of Periodontics
MNR Dental College & Hospital

Oral health has a direct and or indirect impact on the overall general health. Periodontitis is the infectious inflammatory disease caused by the bacteria of the dental plaque, resulting in the progressive destruction of the supporting tissues of the teeth, i.e., the gingival, the periodontal ligament, cementum, and the alveolar bone. Individual susceptibility of periodontitis is influenced by a number of factors including systemic diseases and conditions. Many systemic conditions like cardiovascular conditions, pregnancy, stress is considered as risk factors and diabetes is one amongst them.

The increased prevalence and severity of periodontitis is typically seen in patients with diabetes led to designation of periodontitis as the sixth complication of diabetes by American academy of periodontology.

WHAT IS DIABETES?

Diabetes is a metabolic disease that occurs when your blood glucose, also called blood

sugar, is too high (hyperglycaemia). Blood glucose is your main source of energy and comes from the food you eat. Insulin, is the hormone produced by pancreas, which helps glucose from food to reach cells for energy.

In certain conditions our body doesn't produce enough insulin or doesn't use the produced insulin. Glucose then stays in your blood and doesn't reach the cells.

WHAT ARE THE DIFFERENT TYPES OF DIABETES?

1. TYPE 1 DIABETES

The immune system attacks and destroys the cells that produce insulin within the pancreas - β cells. Type 1 diabetes is usually diagnosed in children and young adults.

2. TYPE 2 DIABETES

In this diabetes the insulin produced is not taken up by the body cells or enough insulin is not produced. This type of diabetes occurs most often in middle-aged and older people.

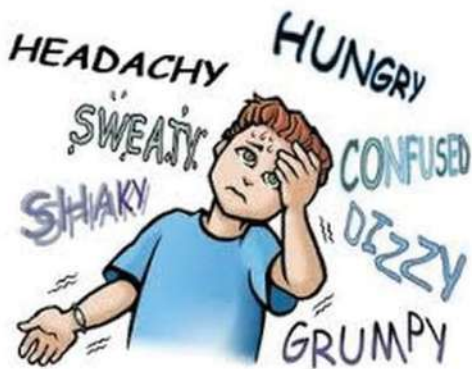
3. GESTATIONAL DIABETES

Gestational diabetes develops in some women when they are pregnant. Most of the time, this type of diabetes disappears after the baby is born.



SYMPTOMS OF DIABETES

- Increased hunger- polyphagia
- increased thirst- polydipsia
- frequent urination- Polyuria
- weight loss
- blurry vision
- extreme fatigue
- sores that don't heal



COMPLICATIONS OF DIABETES

- Retinopathy
- Nephropathy
- Neuropathy
- Macrovascular diseases
- Altered wound healing
- Periodontitis



WHY ARE PEOPLE WITH DIABETES MORE LIKELY TO DEVELOP ORAL HEALTH PROBLEMS?

- Diabetes is a major risk factor for periodontitis; susceptibility to periodontitis is increased by approximately threefold in people with diabetes.
- Diabetes leads to reduction in defence mechanism and increased susceptibility to infection leading to destructive periodontal disease.
- The increased susceptibility to infection and reduced healing capacity with altered collagen metabolism may explain the increased level of periodontal destruction.
- Increased glucose level in crevicular fluid in diabetics may favour the growth of some microbial species.



PEOPLE WITH DIABETES SHOW THE FOLLOWING ORAL SYMPTOMS:

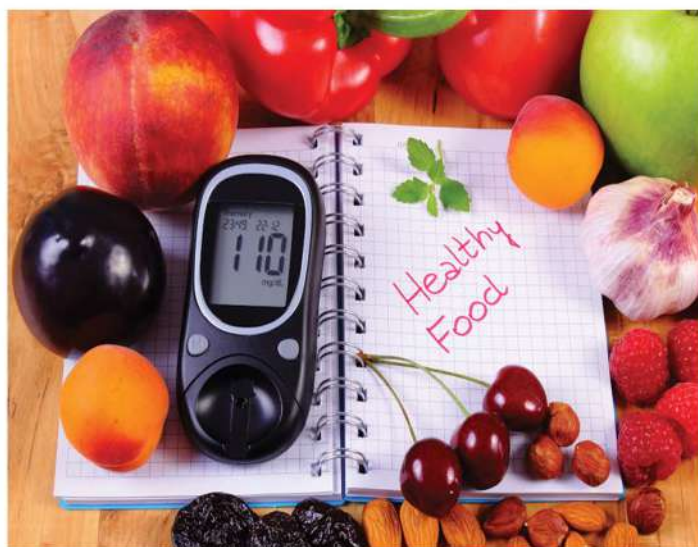
- Dry mouth: Decrease saliva flow causes dry mouth which further lead to soreness, ulcers, and tooth decay.
- Gum inflammation (gingivitis) and

periodontitis: Since periodontal disease is a bacterial infection, people with uncontrolled diabetes might experience more frequent and more severe gum disease.

- Poor healing of oral tissues: In uncontrolled diabetes wounds do not heal quickly after oral surgery or other dental procedures.
- Thrush: diabetic people who frequently take antibiotics are especially prone to developing a fungal infection of the mouth and tongue. The fungus thrives on the high glucose levels in the saliva of people with uncontrolled diabetes.
- Burning mouth and/or tongue: This condition is caused by the presence of thrush

MANAGEMENT:

- Use your diabetes-related medications as directed
- Eat healthy diet that include fruits, vegetables and whole grains.
- Get at least 150 minutes per week of aerobic exercise, such as walking or cycling.
- Cut saturated and trans fats, along with refined carbohydrates, out of your diet.



DENTAL MANAGEMENT INCLUDES:

- Regular dental visits are important.
- Control your blood sugar levels.
- Research suggests that treating gum disease can help improve blood sugar control in patients living with diabetes, decreasing the progression of the disease.
- Practicing good oral hygiene.
- Advising on the various types of oral care products and how to use them
- Advice on cessation of smoking or tobacco if any.

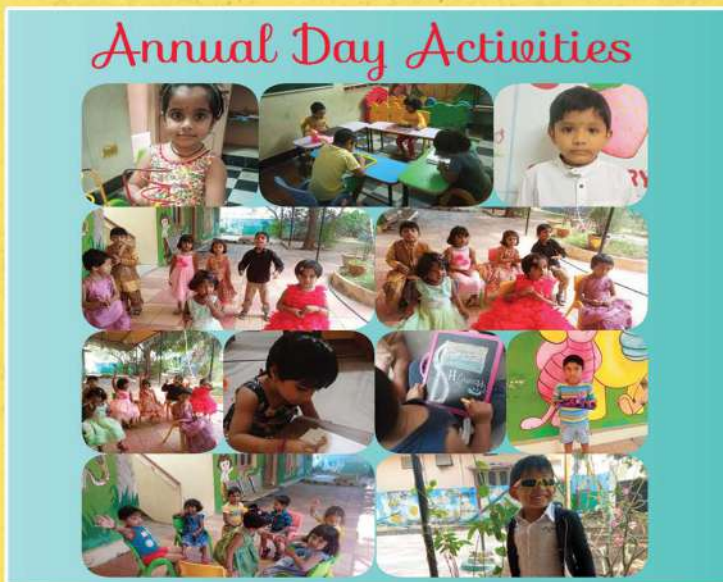
Diabetes is a systemic disease which is a serious oral co-morbidity. there is a need for appropriate health education as good oral health is important for diabetic individuals.



Activities @ MNR Golden Kids (Navi Mumbai)



Activities @ MNR Golden Kids (Hyderabad)



Activities @ MNR Group of Schools



Bhel, Hyderabad



Chintal, Hyderabad

Our student **D. Jasvitha (Class: 6)** has participated in Badminton Championship conducted by **MADHAV BADMINTON ACADEMY, Cherlapally.**

She has won three prizes in the event.

- 1) First prize in doubles under 13 years
- 2) Second prize in singles under 13 years
- 3) Second prize in doubles under 15 years



Sangareddy, Hyderabad



Bhel, Hyderabad



Chintal, Hyderabad



Black & White Day

Kukatpally, Hyderabad

Activities @ MNR Group of Schools



Navi Mumbai



Chintal, Hyderabad



Kukatpally, Hyderabad



Bhel, Hyderabad



Navi Mumbai



Mehdipatnam, Hyderabad

Our Motto

EDUCATION *And* HEALTH



Well organized
BUS FACILITY
with regular
SANITIZATION

Your
child
is in
safe
hands



- ◆ Sanitized school premises.
- ◆ **Spacious and well ventilated class rooms.**
- ◆ **Seating arrangements redesigned according to social distancing norms.**
- ◆ **Hygienic toilets.**
- ◆ Trained helpers to sanitize students at the entrance.
- ◆ Thermal screening everyday.
- ◆ **Hand sanitizer Provided**
- ◆ **Face Masks Mandatory for all.**
- ◆ Rescheduled time-table according to government guidelines.
- ◆ Well trained teachers and staff to deal with the pandemic.
- ◆ Awareness programmes for parents and students
- ◆ Frequent sanitization of common areas

MNR GROUP OF SCHOOLS

HYDERABAD | MUMBAI | SHARJAH
(Dubai)

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