IJGC

INDIAN JOURNAL OF GERIATRIC CARE

JAN-APR 2022, VOL. 11 NO 1

HIGHLIGHTS

GERIATRIC SOCIETY INDIA
CARING THE ELDERLY

Announcement

Geriatric Society of India West Bengal Branch

(Under the aegis of GSI WB Institute of Training, Education and Research (GWITER)- Established by a resolution of the registered body, Geriatric Society of India West Bengal Branch)

Launching Soon!

Geriatric Social Worker (Caregiver) Training Programme

(Pre-recorded online video training programme)

Course Duration – 06 (Six Month)

Eligibility - Pan India, 10+2 Passed and above

(Under exceptional cases educational qualification can be lowered)

Medium of Study: English

Course Fee: 1000/-

Inclusive of a copy of "A guide for a Geriatric Social Worker Caregiver)

Invited Faculty: Pan India GSI Members and also non-Medicos.

Contact:
Dr. Kaushik Ranjan Das (krdas58@yahoo.co.in)

Announcement!!

GSICON 2022

2nd, 3rd & 4th December 2022

at

Biswa Bangla Convention Centre

Kolkata

Contact:
Dr. Kaushik Ranjan Das (krdas58@yahoo.co.in)

Editorial Board

IJGC
Indian Journal of Geriatric Care

Subscription Information:
Indian Journal of Geriatric Care is published three times a year.

DELENG/2012/42798 Dt. 12 June 2012, Price Rs. 20 Per Copy

Annual subscription for Journal, all flyers and circulars Rs: 1000.00 (One Thousand Only) for India; for other countries US $ 40.The journal is dispatched within India by surface mail and to other countries by sea mail.

Business Correspondence:
Enquires concerning subscription, advertisement, etc, should by addressed to Dr.O.P.Sharma, Editor-in- Chief , IJGC, K-49 Green Park Main New Delhi 110016.
Tel: 9810627346. Email : opsharma.gsi@gmail.com

Edited, printed and published by:
Dr. O.P. Sharma, for The Geriatric Society of India, K-49 Green Park Main, New Delhi-110016.
The Editor disclaims any responsibility or liability for statements made and opinion expressed by authors or claims made by advertisers.

Advertorial Enquiry:
Dr. O.P. Sharma, Editor-in- Chief, IJGC, K-49 Green Park Main, New Delhi-110016. Tel: 9810627346. Email : opsharma.gsi@gmail.com

Printed at Modest Graphics (P) Ltd, C-53, DDA Sheds, Okhla Phase-I, New Delhi, India.

CONTENT

IJGC
INDIAN JOURNAL OF GERIATRIC CARE

Editorial

Dr. P N Jain
MD, FAMS, FICA, FIAPM
Professor
Dept of Palliative Medicine,
Tata Memorial Centre, (Homi Bhabha National Institute: A deemed university, Mumbai- 400012.

Palliative Care: Increasing Need

WHO (2013) defined palliative care (PC) as "an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification, impeccable assessment and treatment of pain and other problems, physical, psychosocial, and spiritual.[1] Modern PC should be understood in its broadest sense that it may start prenatally up to hospice care and even after death offering bereavement services to the families. The old thinking that palliative care is required only in the last weeks' of life is outdated. It may be offered right from the diagnosis of a serious disease. India, being home to one –sixth of the world's population has a huge burden of suffering from life limiting diseases. It is estimated that in India the total no. of people who need palliative care (PC) is likely to be 5.4 million people a year. Though PC was introduced nearly 30 years ago, it is still in its infancy with less than 1% of patients having access to PC. India ranks at the bottom of the Quality of Death Index in overall score.[2] The International Agency for Research on Cancer (GLOBOCAN project) has predicted that India's cancer burden will be double in the next two decades, from over a million new cases in 2012 to more than 1.7 million by 2035. It clearly indicates that the absolute number of cancer deaths will also set to rise from about 680,000 to 1.2 million in the same period.[3] The estimated number of people in need of palliative care at the end of life is 20.4 million globally [4] It is predicted that by 2025 the geriatric population from developing countries alone will be at 840 million. Projections indicate that the proportion of Indians aged 60 and older will rise from 7.5% in 2010 to 11.1% in 2025. The non-availability of long term care and the quality of the existing facilities for the elderly population also sounds an alarm in India. The current need of the hour is to adopt a holistic approach for the elderly aiming for the best quality of life.

References

1. World Health Organization. (2013). WHO Definition of Palliative Care. Retrieved from http://www.who.int/cancer/palliative/definition/en
2. Bag S, Mohanty S,Deep N, Salins N,Bag S. Palliative and end of life care in India-Current scenario and the way forward. J Assoc Physicians India. 2020 Nov;68(11)61-65 PMID: 33187039
3. Mallath MK, Taylor DG, Badwe RA, Rath GK, Shanta V, Pramesh CS, et al. The growing burden of cancer in India: Epidemiology and social context. Lancet Oncol 2014;15:e205-12.
4. World Health Organization and World-Wide Palliative Care Alliance (WPCA) ; Global Atlas of Palliative Care at End of Life.2020 Available from: http://www.who.int/nmh/Global_Atlas_of_Palliative_Care

A Case of Hyponatremia in An Elderly Patient

Shubhangi Kanitkar*

Abstract
This case describes an elderly patient who presented to OPD in a drowsy and lethargic state. He had altogether stopped taking salt in his diet on his own accord because of some information he had got about role of decreasing salt intake for the control of hypertension. Also, doses of medications for management of blood pressure were increased in order to control blood pressure with inclusion of Telmisartan. Hydrochlorothiazide and Indapamide all of which cause loss of sodium in urine.
We are reporting this case in order to highlight the importance of taking a detailed diet and medication history and also to discuss chronic hyponatremia in elderly.
Keywords: *Hyponatremia, Elderly, Diuretics, low salt diet*

INTRODUCTION

Hyponatremia, is one of the commonest electrolyte imbalances encountered in clinical practice. Prevalence is known to increase in elderly and frail patient groups.[1] It may manifest as confusion or disorientation, to severe neurological manifestations such as seizures and coma. Early recognition, a proper clinical approach for investigations and management plays an important role in successful management.

CASE REPORT

A 74 years old male was brought to our OPD by his son in a wheelchair. The son informed that his father was drowsy for the past few days and he was having difficulty in walking. There was no history of fever, headache, convulsions or trauma. Patient had history of mild Covid-19 infection 3 months prior and recovered after 15 days treatment in hospital. He was a known case of hypertension for past 3 years and was controlled on antihypertensive medications. Post Covid, it was found that his blood pressure was high and he was advised to increase the dose of Telmisartan.

The patient had read about importance of reducing salt intake in diet and decided to decrease salt consumption. He asked his family members to cook food with less salt for him.

Gradually he asked them to cook food without salt and for a few days before admission he was consuming only roti soaked in milk.

In the meanwhile his blood pressure was still on the higher side, he consulted two physicians and was advised following anti- hypertensive medications- Telmisartan with Hydrochlorothiazide was given instead of plain Telmisartan and Indapamide was added later.

On examination patient was drowsy. He was answering questions relevantly but sluggishly. He was oriented to time, place and person. Vitals- Pulse 84/ minute, regular, all peripheral pulses felt and Blood pressure was 136/84 mm Hg. He was afebrile and maintaining SPO2 97% on room air. On CNS examination, nutrition and tone were normal. Power was grade 4+/5 in all 4 limbs. All superficial and deep reflexes were normal. Laboratory investigations revealed Hemogram with CBC, Blood sugar, RFT, LFT, TFT and serum cortisol were within normal limits. Xray chest, and ECG were normal. MRI brain with venogram, no abnormality detected. Serum Sodium 103 meq/litre. (Normal 135 -145 meq/litre).

Serum Potassium 4 meq/litre (Normal 3.5 -5 meq/litre).

Serum Chloride 102 meq/litre (Normal 96 -106 meq/litre) .

Serum osmolality- 230mOsm/kg. (275 to 295 mOsm/kg) Urine osmolality - 80 mosm/kg (Normal 50 to 1200 mOsm/kg).

Urine Sodium -20 mosmol/L

A diagnosis of severe hypo-osmolar hyponatremia due to chronic sodium deficiency and use of sodium lowering antihypertensive medications was made.

Patient was admitted in hospital. Since the hyponatremia was chronic in onset, no aggressive treatment was given. Telmisartan, Hydrochlorothiazide and Indapamide were stopped. Amlodipine was given for management of hypertension.

*Professor and Head, Department of Medicine, Dr D.Y.Patil Medical College Hospital and Research Centre, Pimpri Pune

Oral salt capsules were given and patient was asked to consume normal salt in diet.

The Serum Sodium increased to 106 meq/ litre on the next day and over a period of 15 days his Serum Sodium levels came to normal.

On discharge there was no drowsiness, no neurological deficit and his Blood pressure was well controlled on Amlodipine 10 mg twice a day.

DISCUSSION

The prevalence of hyponatremia in the community is about 8% and it is increased significantly with age.[2] Many studies have shown that the elderly are prone to the development of hyponatremia, with the prevalence of chronic hyponatremia being approximately 20% among residents of a long-term care facility.[3] Chronic hyponatremia is frequently multifactorial in the elderly. Thiazide diuretic use was a common contributing factor.[4]

Low salt diet followed by many elderly patients may also contribute to hyponatremia.

Mild hyponatremia usually remains asymptomatic till Serum Sodium levels of 125 mEq/L. The CNS symptoms such as confusion, lethargy, focal neurologic deficits, disorientation and agitation usually manifest with lower serum Sodium levels and severe neurologic features such as seizure and coma are usually seen when the sodium level falls acutely below 115 mEq/L5

In patients with hyponatremia, serum osmolality should be measured (normal range 275 to 295 mOsm/kg). If osmolality is more than 295 mOsm/kg in a case of hyponatremia, it could be due to hyperglycemia and it should be corrected if present.

Our patient had a hyponatremia with low serum osmolality.

Hypo-osmolar Hyponatremia is further categorized in three-ways based on patient's volume status- hypervolemic, euvolemic and hypovolemic.

Hypovolaemic - The common cause could be use of thiazide diuretics. The urine sodium in this situation is more than 20mMol/L. Dehydration can also be a cause of hypovolemic hyponatremia, and the urine sodium usually is less than 20mMol/L). Euvolemic hyponatremia e.g. Syndrome of inappropriate ADH secretion (SIADH) (urine sodium more than 20mMol/L and

Hypervolemic e.g. renal failure (urine sodium less than 20mMol/L), Cardiac failure cirrhosis of liver (urine sodium less than 20mMol/L).

Measurement of urine osmolality helps in diagnosing SIADH where in urine osmolality is usually more than 100 milliosmoles in spite of low serum osmolality.[1,5]

Hyponatremia may occur in elderly individuals with a low GFR who follow a diet poor in salt and protein but drink a large amount of water. In these cases, there is a low distal delivery of filtrate (due to low GFR and possibly chronic sodium deficit) and increased water reabsorption due to the low rate of osmoles excretion; thus, when water consumption exceeds the renal water excretion capacity, hyponatremia occurs.[6]

Studies indicate that hyponatremia is related with a poor prognosis in elderly subjects, and it is independently associated with an increased mortality risk.[7] In our case, it was the combination of a low salt diet and use of antihypertensive medications that lead to severe hyponatremia.

Chronic hyponatremia should be gradually corrected. The serum Sodium should generally be corrected at a rate that does not exceed 8 mEq/L/day. Sudden return of Extra cellular Fluid osmolality to normal values will lead to cell shrinkage and possibly precipitate osmotic demyelination.[8]

CONCLUSION

Hyponatremia in elderly could be multifactorial and low dietary intake along with use of medications such as thiazides could be the cause. Older persons may present with symptoms such as drowsiness, fatigue, convulsions and coma. It is very important to obtain a detailed drug and diet history in the elderly presenting to the outpatient department for diagnosis and management.

REFERENCES

1. Cumming K, Hoyle GE, Hutchison JD, Soiza RL (2014) Prevalence, Incidence and Etiology of Hyponatremia in Elderly Patients with Fragility Fractures. PLoS ONE 9(2): e88272. https://doi.org/10.1371/journal.pone.0088272
2. Liamis G, Rodenburg EM, Hofman A, Zietse R, Stricker BH, Hoorn EJ. Electrolyte disorders in community subjects: prevalence and risk factors. Am J Med. 2013;126(3):256–263. [pubmed]
3. Tomas Berl An Elderly Patient with Chronic Hyponatremia Clin J Am Soc Nephrol 8: 469–475, 2013. Doi: 10.2215/CJN.03100312
4. Liamis G, Filippatos TD, Elisaf MS. Thiazide-associated hyponatremia in the elderly: what the clinician needs to know. J Geriatr Cardiol. 2016;13(2):175-182. Doi:10.11909/j.issn.1671-5411.2016.02.001
5. Dash, Subhash Chandra; Sundaray, Naba Kishore; Rajesh, Beeravelli; Pagad, Trupti. Hyponatremia in Elderly in patients Journal of Clinical & Diagnostic Research. Feb2019, Vol. 13 Issue 2, p1-4. 4p. DOI: 10.7860/JCDR/2019/39957.12554.
6. Rafei, H, Yunus, R., Khurana, P. Beer Potomania: A Challenging Case of Hyponatremia. Journal of Endocrinology and Metabolism, North America, 6, sep. 2016.
7. Filippatos TD, Makri A, Elisaf MS, Liamis G. Hyponatremia in the elderly: challenges and solutions. Clin Interv Aging. 2017;12:1957-1965. Published 2017 Nov 14. Doi:10.2147/CIA.S138535
8. Biff F. Palmer Fluid and Electrolyte Disorders 268 Cecil Essentials of Medicine 10th Edition Edward J. Wing Fred J. Schiffman Elsevier 2022

Immunomodulator Therapy In Life Threatening Skin Disease

Jayanta Sharma*, Sudipto Chakroborty**, Surojit Gorai***

CASE REPORT

62-year-old male patient, past history of Hypertension, with history of itchy skin lesions for which he was on rampant ayurvedic and homeopathic medications since last 6 months- presented with whole body erosions and blister formation and had a foul smell from them, at emergency of our hospital.

On admission, patient was conscious, alert, co-operative; No Pallor/Icterus/Cyanosis/Clubbing/Oedema; Heart Rate – 82/min, regular, BP- 110/60 mm Hg; Respiratory Rate – 20/min, regular, SpO2 96% at Room air; Jugular Venous Pressure- Not raised; No Lymph Node was palpable; Skin and mucosa examination showed whole body erosions with blister formations which affected both hands, neck to groin in both front and back, extending until the knees on the left side. There was also oral mucosal lesions present. Systemic examination findings were unremarkable.

Differential Diagnosis to consider:

1. Steven Johnson's Syndrome/ Toxic Epidermal Necrolysis as part of Drug Reaction
2. Infections- Staphylococcus infection, etc
3. Autoimmune diseases- Pemphigus Vulgaris, IgA Bullous Dermatosis, Bullous Pemphigoid etc
4. Inflammatory- Erythroderma
5. Environmental- Burns
6. Others

After admission, at ward, all the relevant investigations were sent and Treatment started with broad spectrum IV antibiotics and IV Fluids. Daily dressing with liquid paraffin and antibiotic cream and all infection control practices were followed stringently including Barrier Nursing.

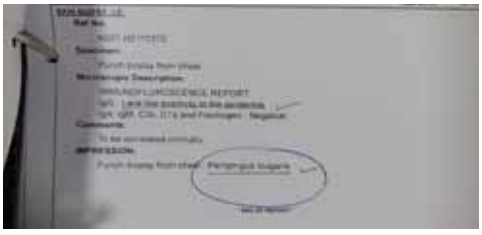
Day 2 of Admission

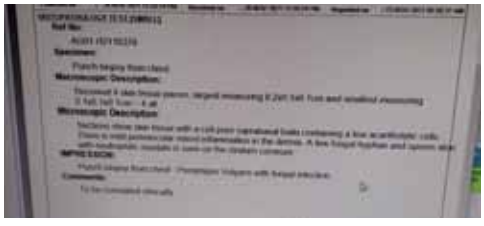
Punch biopsy done from skin lesions from front of chest and the procedure was uneventful. The Investigation chart is given below:

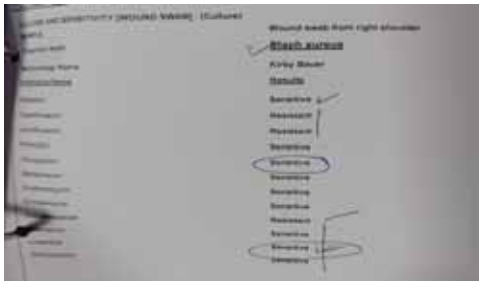
*Sr. Consultant, Geriatric And Internal Medicine,
**DNB Resident, ***MD. Dermatology,
Apollo Gleneagles Hospital, Kolkata.

	18/11/202	20/11/20211	24/11/202
HEMOGLOBIN	11.9	10.5	11.6
TOTAL WBC COUNT	4600 N79L	10700 N55L14 MYELOCYTE 10 METAMYELOCYTE 8	21000 N91L2 MYELOCYTE 1 METAMYELOCYTE 2
PLATELET	4.5	3.76	3.68
UREA	58	24	32
CREATININE	0.9	0.7	0.8
SODIUM	129	135	134
POTASSIUM	4.9	4	4.4
ALBUMIN/GLOBULIN	2/3.1	1.7/3.3	2.2/3.7
SGOT/SGPT/ALP	171/203/62	89/129/56	94/126/73
PT/INR	14.6/1.11		
HIV/HBsAg/Anti-HCV/ANA/RA FACTOR/TB GOLD	NEGATIVE		
URINE AND BLOOD C/S	NO GROWTH		
PROCALCITONIN	0.99		

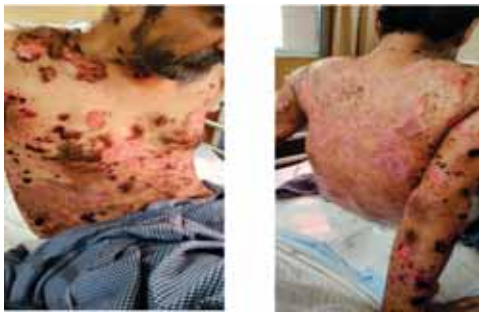
Upon confirming that there is no active focus of infection present, patient was started on IV pulse dose of Dexamethasone on day 3 of admission. Later, diagnosis was confirmed with Histopathology and Direct Immunofluorescence as Pemphigus Vulgaris with added superficial infection with Staphylococcus aureus and fungal infection.







Patient was then treated with IV Immunomodulator therapy (Injection Rituximab) infusion 1000 mg after proper pre-medications along with all other previous medications. Patient had a dramatic improvement with it, the skin lesions improved significantly and patient was discharged within 6 days of receiving it with oral antibiotics and oral steroids for further follow up at OPD.



Day before Discharge

Patient got readmitted 2 weeks later for next dose of IV Rituximab infusion 1000 mg and was continued on tapering dose of steroids orally during discharge.

After 2 weeks

CASE DISCUSSION

This patient presented with blistering and erosive skin disease which was diagnosed as a case of Pemphigus Vulgaris with superadded Staphylococcal and Fungal infection, which was treated with IV antibiotics, steroids and IV Rituximab and patient had a favourable outcome.

Blistering and erosive skin diseases are part of dermatological emergency and they need to be diagnosed properly and treated as early as possible; otherwise, they can turn into fatal disease.

Pemphigus vulgaris (PV) is a rare and serious (potentially life-threatening) condition that causes painful blisters to develop on the skin and lining of the mouth, nose, throat and genitals. The blisters are fragile and can easily burst open, leaving areas of raw unhealed skin that are very painful and can put at risk of infections. There is currently no cure for pemphigus vulgaris, but treatment can help to keep the symptoms under control. The condition can affect people of all ages, including children, but most cases develop in older adults between the ages of 50 and 65. It is not contagious and not passed from one person to another. The blisters usually develop in the mouth first, before affecting the skin a few weeks or months later. There may be times when the blisters are severe (flare-ups), followed by periods when they heal and fade (remission). It is impossible to predict when this might happen and how severe the flare-ups will be. Blisters in the mouth often turn into painful sores, which can make eating, drinking and brushing teeth very difficult. The voice can become hoarse if the blisters spread to the voice box (larynx). Sores on the skin can join together to form large areas of painful, raw-looking skin, before crusting over and forming scabs. They do not usually leave any scars, although affected skin can occasionally become permanently discoloured. As well as getting blisters in the mouth, they can also develop in other areas of the digestive system's soft tissue lining, including the nose, throat, anus, genitals and vagina. The thin membrane that covers the front of the eye and inside of the eyelids (conjunctiva) can also be affected. It is very rare for persistent sores and blisters to present as Pemphigus Vulgaris. If the doctor thinks symptoms could be caused by a serious condition such as pemphigus vulgaris, they may refer to a dermatologist (skin specialist) for some tests. The dermatologist will examine skin and mouth and may take a biopsy from the affected area so it can be analysed in a laboratory. This can confirm the diagnosis.

Pemphigus vulgaris is an autoimmune condition. In pemphigus vulgaris, the immune system attacks cells found in a deep layer of skin, as well as cells found in the mucous membrane (the protective lining of the mouth, nostrils, throat, genitals and anus). This causes blisters to form in the affected tissue. It is unclear what causes the immune system to go wrong in this way. Certain genes have been linked to an increased risk of pemphigus vulgaris, but it does not tend to run in families.[1]

Regarding treatment of Pemphigus vulgaris, Systemic Corticosteroids are first-line of treatment- can be used as monotherapy or in combination with other immunosuppressive agents when complications are predicted, as in patients of hypertension, diabetes mellitus, etc or in cases of contraindications of glucocorticoids or in cases where prolonged treatment is expected for remission. A recent systematic review of randomised controlled trials of corticosteroids with adjuvant therapy of other immunosuppressive drugs has shown that they are not beneficial in facilitating to achieve remission but significantly reduce risk of relapse by 29%.

Adjuvant drugs include mainly-

1. Azathioprine- Dose varies between 1-3 mg/Kg/day.
2. Mycophenolate mofetil- Daily optimal dose of 2gm/day is targeted.
3. Cyclophosphamide- can be administered as 500mg IV infusion or 2mg/kg/day.
4. Dapsone- recommended dose 100mg/day.
5. Methotrexate- recommended dose 10-20mg/week.
6. Rituximab- Administration schedule in literature is either 1,000 mg IV every 2 weeks or 375 mg/m2 every week. The same dosage can be administered again in case of clinical relapses. A meta-analysis on treatment with rituximab in severe pemphigus showed remission in approximately 95% of the total patients. Prophylactic infusion after complete remission does not seem to provide any additional benefit. Rituximab does not eliminate the need for steroids or immunosuppressive agents, and most patients in published studies did use such therapy along with rituximab.
7. Intravenous Immunoglobulins- used only in refractory cases or when adjuvants are contraindicated in dose of 2gm/kg cycle IV infusion for 3-5 days.
8. Infliximab- chimeric monoclonal antibody against Tumour necrosis factor alpha. Although there are case series and case reports of it being useful against PV, current evidence shows no benefit.
9. Other therapeutic strategies- A. Immunoadsorption by removing auto-antibodies Dsg1 and Dsg3., B. Plasmapheresis,C. Extracorporeal photochemotherapy.[2]

REFERENCES

1. https://www.nhs.uk/conditions/pemphigus-vulgaris/
2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4622091/

A Rare Atypical Presentation of Tuberculosis in Elderly Male

Dinakaran Umashankar*, K Anupama Murthy**

INTRODUCTION

Tuberculosis (TB) is a chronic granulomatous infectious disease and is the leading infectious cause of death from any single organism in adults especially in developing countries. It primarily affects the lungs, with the head and neck being a rare site of extrapulmonary involvement.[1] Age-related changes to the innate and adaptive immune system can increase susceptibility to TB infection or the reactivation of latent TB infection (LTBI) in older patients.[2] For older patients, the higher rate of TB is likely a combination of cumulative years with LTBI, age-related immuno-senescence, comorbidities and immunosuppressive therapy).[3] Atypical clinical manifestations of TB in older persons can result in delay in diagnosis, initiation of treatment and higher rates of morbidity and mortality.

CASE REPORT

A 68 years old male presented with history of difficulty and pain during swallowing for 2 weeks duration equal to both solids and liquids ,loss of appetite and ataxic gait. He is a known case of Type 2 Diabetes Mellitus with poor glycemic control. He was diagnosed to have left Chronic serous otitis media (CSOM) for which he underwent modified radical mastoidectomy (MRM) in December-2020. In view of persisting weight loss, anorexia during postoperative period, MRI brain was done, which showed skull based soft tissue lesion for which patient was treated with higher end broad spectrum antibiotics for 3 weeks and anti-fungal in February 2021. On examination , he was moderately built with stable vitals, but patient had ataxic gait while walking. Auscultation showed both sides normal vesicular breath sounds, no added sounds. Baseline investigations showed Leukocytosis, elevated ESR and HbA1C- 9.7%. He underwent CT chest which showed patchy tree in bud bronchiolitis in both lungs suggestive of Tuberculosis. Sputum AFB & GeneXpert was negative for mycobacterium Tuberculosis. Neurology consultation was obtained for ataxic gait, and was advised MRI brain. MRI brain showed ill-defined abnormal soft tissue intensity lesion (2.4x5.0x4.6cm) at base of skull on left side- skull base osteomyelitis suggestive of infection. Biopsy of the lesion was planned after discussing with ENT surgeon, Neurologist and interventional radiologist, but was soon deferred owing to difficulty in accessibility of the lesion. A diagnosis of disseminated TB was made and patient was started on empirical Anti Tuberculosis treatment (ATT) along with strict glycemic control with which his clinical condition improved on follow-up. His appetite improved, with clinical weight gain and improvement in his ADLs .Currently the patient has completed 2 months (Intensive phase) of anti TB treatment and the patient will be under our observation till he finishes the complete course of ATT. Repeat MRI of Brain will be done at the completion of treatment

CONCLUSION

Disseminated TB is an important health problem worldwide associated with a significant burden of morbidity and mortality. Diagnosis is difficult owing to its nonspecific clinical presentation and the limited tools for confirmatory laboratory diagnosis.[4] Disseminated TB to the meninges,

*JR, Department of Respiratory Medicine, PSGIMSR, Coimbatore ,
**Professor, Department of Respiratory Medicine, PSGIMSR, Coimbatore

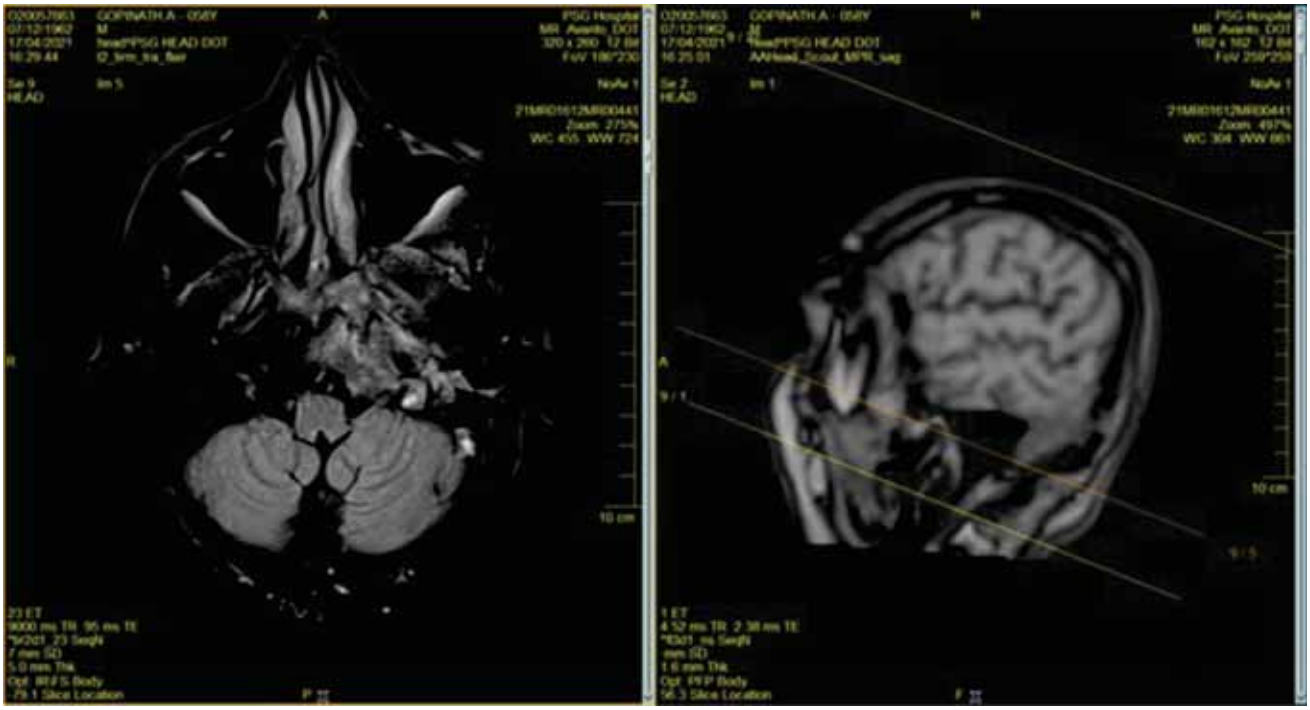


Figure 1. Ill defined abnormal soft tissue intensity lesion (2.4x5.0x4.6cm) at base of skull on left side (arrow)

spinal cord, bone, joint, and muscle is exceedingly rare, and it is important to diagnose early. This case serves to demonstrate that TB dissemination can present atypically with only radiological findings suggestive of TB , which needs to be further investigated. In our case patient developed disseminated TB due to uncontrolled diabetes and post operational immunocompromised state. Additionally, this case shows successful treatment and outcome for the patient with early diagnosis and treatment management.[5]

REFERENCES

1. Deshpande, Ashwini et al. "Atypical presentation of tuberculosis." Journal of oral and maxillofacial pathology : JOMFP vol. 24,2 (2020)
2. Byng-Maddick R, Noursadeghi M. Does tuberculosis threaten our ageing populations? BMC Infect Dis 2016
3. Negin J, Abimbola S, Marais BJ. Tuberculosis among older adults – time to take notice. Int J Infect Dis 2015
4. Khan FY. Review of literature on disseminated tuberculosis with emphasis on the focused diagnostic workup. J Family Community Med. 2019
5. A Case Report of Widely Disseminated Tuberculosis in Immunocompetent Adult Male, Samantha B. Esposito et al., 2020 march

PRACTICAL TIPS

Prevention of Delirium in Elderly

Anand P.Ambali , M.Abrar Ul Huq.

Delirium is an acute preventable impairment in cognition and consciousness. Following are the non-Pharmacological measures to prevent Delirium in home or hospital.

Do's

Assess for pain, withdrawal symptoms,
Hypoxia, blood counts and electrolytes.
Trial of oral Paracetamol supplementation
Good communication daily

Good Hydration
Nutritious food

Same caregiver or family member to be with them.
Allow to have bath daily if conditions are suitable.

Allow family member to meet, read newspaper and listen to songs, news and watch serials on mobile.
Reassurance

Look for constipation or
Impacted stools and relieve by
Enema

Preferable bed near window
Silent cardiac monitors

Early mobilization from bed
Early shift form ICU to general ward

Orient them daily regarding day, time, place person, and members present.
Wall clock and Calendar in room

Early removal of Catheters,
Ryle's tube, ICD Tube, and Lines
Allow to Use Spectacles,
Hearing aids and Dentures

Keep asking what are their needs they need?
And try to fulfil them
Allow prayers in room
Provide homemade food.

Don't's

1. Aplrazolam / Diazepam
2. Tramadol / Opiods
3. Anticholinergic.

Schedule drug dosage in night hours (11PM to 06AM) unless emergency

Use physical restraints.
Transfer to different rooms frequently.
Isolate in ICU

Change nursing staff or doctors, schedule of BP monitor and timing of drugs daily.

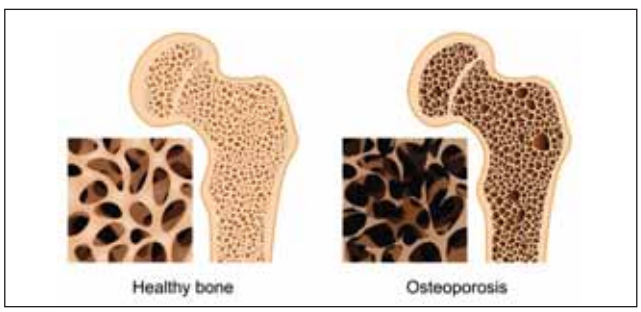
Dr Anand P.Ambali, MD,PGDGM,MSc,FGSI,FICP,FRCP Edin
Dr M Abrar Ul Huq, DNB, Family Medicine, Assistant Professor,
Department of Geriatric Medicine, BLDE DU, Shri B M Patil Medical College Hospital & RC , Vijayapura. 586103 Karnataka
anand.ambali@bldedu.ac.in

Treatment of Osteoporosis: an update

Chinmoy Kumar Maity*

INTRODUCTION

Osteoporosis is a common problem globally, affecting particularly the elderly. The word "Osteoporosis" is derived from: (Osteo = bone)(English) + (poros = pore)(Greek) + osis (English) and it is defined as a systemic skeletal disorder characterized by low bone mass with micro-architectural deterioration leading to increased bone fragility and risk of fracture. There are two components of osteoporosis – i) Degradation / loss of bone matrix and ii) Breakdown of mineral component / demineralization.



With the growth of our skeleton, bone mass and density increases and the peak bone mass is achieved around the age of 30 years. Bone remodelling is a lifelong ongoing process for maintenance of mechanical strength and repair and it has two components: i) Bone resorption by osteoclasts and ii) Replacement of new bone by osteoblasts. An imbalance in remodelling where resorption exceeds formation, osteoporosis sets in.

EPIDEMIOLOGY

Osteoporosis is a worldwide problem affecting an estimated 200 million globally and the corresponding numbers are 28 million in the European Union, 3 million in the United Kingdom, 14 million in the USA and around 50 million in India.

In the Caucasians population about 15% in their 50s & 70% in their 80s have osteoporosis. Depending on study models, the overall prevalence is 9-38% in females and 2-8% in males with a Female: Male = 4:1.

Fracture is the most common and serious complication of osteoporosis. Globally 1 in 3 females and 1 in 5 males above the age of 50 yrs have osteoporotic fracture. One osteoporotic fracture occurs every 3 seconds globally giving a number around 28 000 / day. Global burden of osteoporotic fractures is about 8.9 million per year. Estimated annual economic burden was in the EU 37 billion Euros and in the USA 19 billion US dollar in the recent years. Though the prevalence of osteoporosis is much higher in females, the risk of fracture is more common in males with a Female: Male for osteoporotic fracture 3:2.

HISTORY

Osteoporosis haunted the mankind since the dawn of history. Osteoporotic kyphosis, known as "Dowager's hump" noted in 4000 years old Egyptian mummies. The renowned Scottish surgeon John Hunter (1728 – 1793) discovered the concept of bone remodelling in late 18th century. French pathologist Martin Lobstein (1830s) coined the term "osteoporosis" meaning "porous bone". But not much work was done in next 100 years until the famous endocrinologist from Massachusetts, doctor Fuller Albright (1930s) linked osteoporosis with postmenopausal state and started treating women with osteoporosis with oestrogen in 1940s.

1960s was a golden decade in the history of osteoporosis with the discoveries of - Bone Densitometers, Bisphosphonates and Selective Estrogen Receptor Modulators (SERMs). The NIH in 1984 publicised this disease as a significant threat to health and emphasized reduction of bone loss by – estrogen therapy, calcium, good nutrition and exercise. Cytokine receptor activator of the nuclear factor kappa-B ligand (RANKL) was discovered in 1990s. RANKL is produced by osteoblasts and binds to receptors on osteoclasts, leading to the activation and maturation of osteoclasts and results in bone resorption.

*Senior Consultant Physician: General & Geriatric Medicine, AMRI Mukundapur & Medica Superspecialty Hospitals, Kolkata

Food and Drug Administration (FDA) approved Raloxifene in 1997, Denosumab in 2010 and Abaloparatide in 2017.

For increasing public awareness World Osteoporosis Day (WOD) is celebrated on 20th October every year. This was launched by the UK National Osteoporosis Society and supported by the European Commission on 20 October 1996. International Osteoporosis Foundation organised this awareness day in 1997. WHO started sponsoring this day in 1998 and 1999. The Theme of the WOD 2021 was "Take Action for Bone Health: Osteoporosis can be Prevented and Treated".

AETIOLOGY

A) Primary Osteoporosis

1) Associated with ageing - Secondary to continuous deterioration of bone trabeculae with ageing.

2) Sex hormone deficiency – i) Reduction of Oestrogen production in normal postmenopausal state in females and ii) Reduction of testosterone production or inhibition of testosterone and oestrogen by sex hormone binding globulin (SHBG) in aging males.

B) Secondary Osteoporosis – caused by several:

a) Comorbid Diseases – Immobilization, Malnutrition, Hypogonadal states (e.g. Turner syndrome, Klinefelter syndrome, Kallmann syndrome, anorexia nervosa, andropause, hyperprolactinaemia, premature ovarian failure etc), Endocrine disorders (e.g. Hypo and hyperthyroidism, hypo and hyperparathyroidism, hypo and hyperadrenalism, acromegaly, diabetes mellitus etc), Rheumatological disorders (e.g. Rheumatoid arthritis, ankylosing spondylitis, SLE, juvenile idiopathic arthritis etc), Haematological disorders (Thalassemias and other haemoglobinopathies, multiple myeloma and other monoclonal gammopathies, lymphomas, leukaemias, mastocytosis etc), Chronic Kidney disease and Inherited disorders (Osteogenesis imperfect, Marfan syndrome, Ehlers-Danlos syndrome, Porphyrias, hypoposphatasia, haemochromatosis etc).

b) Offending Medications – Corticosteroids, Anticonvulsants, Anticoagulants, PPI, Lithium and Thiozolidinediones.

Risk Factors for Osteoporosis

A) Non-modifiable risk factors - Advanced age, Female sex, Ethnicity, Heredity, Previous fractures, Small stature / build.

B) Modifiable risk factors - Unhealthy lifestyle (excessive alcohol drinking, tobacco smoking, lack of exercise), Malnutrition, Vitamin D deficiency, Underweight, prolonged inactivity, Endurance training, Drugs (corticosteroids, anticonvulsants, PPI etc) and Heavy metals (cadmium, lead etc).

Fracture Risk Assessment Tool

- FRAX (Fracture Risk Assessment Tool):

✓ Developed by the University of Sheffield, UK

✓ Used to predict the 10 years probability of hip fracture and other major osteoporotic fractures.

✓ It takes in to account the risk factors – age, sex, race, BMI, alcohol use, smoking history, personal or parental history of fracture, use of glucocorticoids, secondary osteoporosis, rheumatoid arthritis and femoral neck BMD.

✓ It can assess country-specific probabilities based on epidemiological data.

✓ This tool can be used in conjunction with DEXA scan to select appropriate patients for treatment.

✓ Limitations of FRAX tool –

- It is not validated for use - with total hip or lumbar spine BMD, for ethnic minorities, for those on osteoporotic treatment or for ages outside the specified age range of 40 – 90 years.
- It does not include history of falls as a risk factor and finally
- It does not make recommendations on whom to treat.

Investigations

- Dual Energy X-Ray Absorptiometry (DEXA) Scan – is the investigation of choice.
- Conventional radiography
- Quantitative Computed Tomography (QCT)
- Quantitative USG
- Biomarkers – detection of chemical biomarkers of bone (type-1 collagen) degradation like neoepitope in blood or C-telopeptides in urine.
- Other routine and relevant blood investigations.

Screening for Osteoporosis

- All adults older than 50 years with a history of fracture should have BMD screening.
- Females between 50-65 years with no prior fracture but with additional risk factors for secondary osteoporosis should have BMD screening.
- All females above the age of 65 years and all males above the age of 70 years with no previous fracture or no additional risk factors should have BMD screening.
- Untreated patients and patients on osteoporosis therapy may have repeat BMD monitoring every 2 years or more.

Prevention

- Healthy lifestyle
  - ✓ Smoking cessation, moderation of alcohol intake .
- Healthy eating of balanced diet
  - ✓ Containing at least 700 mg calcium and 10 µg (400 IU) vitamin D daily
  - ✓ Calcium-rich foods – green leafy vegetables / dried fruits / tofu / yoghurt & milk products.
  - ✓ Vitamin D-rich foods – oily fish / red meat / liver / egg yolks / fortified foods / dietary supplements.
- Regular exercises
  - ✓ Weight bearing exercises – running, jumping, skipping, dancing, aerobics etc.
  - ✓ Resistance exercises – press-ups, weight-lifting or using weight equipments at a gym
- Get some sunlight regularly.
- Adequate control of offending co-morbidities and stopping or minimising offending drugs.

Diagnosis of Osteoporosis

- BMD – Bone mineral density is measured by the unit – g/cm3. Normal average BMD of a 30 years old – 1.16 (F) and 1.18 (M).
- T-Score .. Compares with the average score of healthy 30-year-old individuals of same gender and race. A normal T-Score is > (-1).
  - ➢ [T = (Z x 10) + 50].
- Z-Score .. Compares with the average score of other individuals of the same age, weight, ethnicity and gender. A Z-score of < (-1.5) raises the possibility of secondary osteoporosis.
  - ➢ [Z = (x – µ) / σ] [x – individual value / µ – average value / σ – standard deviation].

- **WHO Diagnostic Criteria for Osteoporosis:**

Interpretation	T-Score
Normal	-1 and higher
Osteopenia	-1 to -2.5
Osteoporosis	-2.5 and lower
Severe Osteoporosis	-2.5 and lower with one or more fragility fractures

Treatment of Osteoporosis

- Recommendations for initiation of Pharmacological Treatment:

1) Patients with osteopenia (T-score between – 1 and – 2.5) / osteoporosis (T-score ≥ - 2.5) and a history of fragility fracture at hip or spine.
2) Patients with osteoporosis (T-score ≥ - 2.5) in lumbar spine, femoral neck, total hip or 33% radius despite the absence of a fracture.
3) Patients with osteopenia (T-score between – 1 and – 2.5) and a FRAX 10-year probability for a major osteoporotic fracture is > 20% or >3% for a hip fracture.

- Categories of medications:

A) Anti-resorptive – they reduce bone resorption by inhibiting the osteoclasts:
  - ✓ Bisphosphonates
  - ✓ Estrogen agonist/antagonists(EAAs)
  - ✓ Estrogens
  - ✓ Calcitonin
  - ✓ Denosumab

B) Anabolic – they increase bone mass by stimulating the osteoblasts.
  - ✓ Teriparatide
  - ✓ Abaloparatide

C) DABA (Dual Action Bone Agent) – they have a mixture of both anabolic and anti-resorptive properties:
  - ✓ Strontium Ranelate

- **Bisphosphonates therapy:**

FDA-Approved Indications for Osteoporosis Treatment:

Drugs	Treatment of PMO	Prevention of PMO	Treatment in Men	Treatment of GIO	Prevention of GIO
Alendronate	✓	✓	✓	✓	✓
Risedronate	✓	✓	✓	✓	✓
Ibandronate (Oral)	✓	✓			
Ibandronate (IV)	✓				
Zolendronate (IV)	✓	✓	✓	✓	✓
Conjugated Estrogen		✓			
Raloxifene	✓				
Calcitonin	✓				
Denosumab	✓				
Teriparatide	✓			✓	
Abaloparatide	✓				

- Recommended (excluding Ibandronate) as the first-line drug for prevention and treatment of osteoporosis in:
  - ✓ Postmenopausal women (PMO)
  - ✓ Men
  - ✓ Glucocorticoid induced osteoporosis (GIO).
- Duration of therapy:
  - ✓ Usually 3-5 yrs of oral medicines or 3 yrs of IV Zolendronic acid
  - ✓ In high fracture risk patients 6-10 years oral or 6 years of IV.
- Should be avoided if Cr. Clearance < 30 ml/min.
- Side-effects:
  - ✓ (Oral) heartburn, indigestion, oesophageal erosion/ulcer.
  - ✓ (IV) Fever, myalgia.
  - ✓ Rare – Osteonecrosis of the jaw (ONJ), Atypical femur fracture (AFFs).

Dose Recommendations for Bisphosphonates:			
Bisphosphonates	***Prophylactic Dose***	***Treatment Dose***	***Cr.-Clearance***
Alendronate	5 mg once daily or 35 mg weekly PO	10 mg once daily or 70 mg Weekly PO	≥35 ml / min
Risedronate	5 mg once daily or 35 mg weekly PO	5 mg once daily or 35 mg weekly or 150 mg Monthly PO	≥30 ml / min
Ibandronate	2.5 mg once daily or 150 mg Monthly PO	2.5 mg once daily or 150 mg Monthly PO or 3 mg IV every 3 months	≥30 ml / min
Zolendronate	5 mg IV every 2 years	5 mg IV once Yearly	≥35 ml / min

- Strontium Ranelate therapy:
- Recommended treatment of severe osteoporosis in:
  - ✓ Postmenopausal women (PMO).
  - ✓ Men.
- Mechanism of action:
  - ✓ It stimulates new bone formation by osteoblasts and simultaleously reduces resorption by osteoclasts.
  - ✓ It is known as – dual action bone agent or DABA.
  - ✓ It reduces vertebral fracture by 41% and hip fracture by 36% after 3 years.
- Should be avoided if Cr. Clearance < 30 ml/min.
- Dose : 2 grams (granules) daily in empty stomach.
- Side-effects:
  - ✓ Common - Nausea, diarrhoea and headache.
  - ✓ Rare – Eczema, DRESS syndrome.
  - ✓ VTE and serious cardiovascular disorders only in patients with uncontrolled cardiovascular diseases.
- Withdrawn from the market by Servier in 2017, but returned the market in the UK by Aristo in 2019.
- Denosumab therapy:
  - ✓ First biologic agent (RANKL inhibitor) available for treatment of osteoporosis.
  - ✓ Recommended first-line therapy for high risk patients and for patients unable to use oral therapy.
  - ✓ Approved for treatment of PMO and osteoporosis in men.
  - ✓ Dose – 60 mg SC every 6 monthly.
  - ✓ Efficacy – RR reduction of vertebral fracture by 60-70% and hip fracture by 40%.
  - ✓ No dose adjustment necessary in hepatic or renal impairment except in stage-5 CKD, where it should be avoided.
  - ✓ S/E – hypersensitivity, serious infections, skin reactions, MS pain, hypocalcemia, hyperchoesterolaemia and rarely ONJ/AFF.

- Estrogen Agonist -Antagonists (EAAs) / Selective Estrogen Receptor Modulators (SERMs):
  - ✓ Recommended in PMO.
- Two agents:
  - ✓ Raloxifene – 60 mg PO daily
  - ✓ Lasofoxifene (a third generation SERM) – 0.5 mg PO daily.
- Both have dual agonistic and antagonistic properties in estrogenic pathway: agonist action on bone decreases bone resorption and antagonist action on breasts reduce breast cancer.
- Significant fracture reduction only in spinal osteoporosis.
- S/E – vaginal bleeding, hot flushes, VTE, hypertriglyceridaemia and stroke. S/Es are much less with Lasofoxifene, and rather it reduces CHD and stroke.

- **Estrogen-Progestin therapy:**
  - ✓ Approved only for high risk PMO, where all non-estrogenic therapy are inappropriate.
  - ✓ S/E – VTE, stroke, cardiovascular events, invasive breast carcinoma.
  - ✓ No longer recommended as first-line therapy.
- Testosterone therapy:
  - ✓ Limited data is available.

- ✓ Recommended combination use with other anti-fracture treatment for high risk men.
- ✓ Testosterone monotherapy for those with testosterone level <200ng/dl and other antiosteoporotic therapy is contraindicated.

- Calcitonin therapy:
  - ✓ Approved only for PMO in women who are postmenopausal for more than 5 years and alternative treatments are not feasible.
  - ✓ Dose – 200 IU as nasal spray daily.
  - ✓ Efficacy – 33% reduction of vertebral fractures.
  - ✓ S/E – rhinitis, nasal irritation, nose bleed, arthralgia, back pain, headache and increased incidence of cancers.
  - ✓ No longer recommended as first-line therapy.

- **Teriparatide therapy:**
  - ✓ First recombinant human PTH analogue.
  - ✓ Recommended for severe PMO and GIO.
  - ✓ Suitable for those unable to take oral therapy.
  - ✓ Dose – 20 mcg SC daily for 2 years.
  - ✓ Efficacy – reduces both vertebral & non-vertebral fractures significantly.
  - ✓ Should be avoided in patients with – Paget's disease of bone, unexplained ALP elevation, prior skeletal radiotherapy, primary or metastatic bone malignancy, hyperparathyroidism etc.

- **Abaloparatide therapy:**
  - ✓ Second recombinant human PTH analogue, which had FDA approval in 2017.
  - ✓ Recommended for severe PMO.
  - ✓ Dose – 80 mcg SC daily for 2 years.
  - ✓ Efficacy – reduces vertebral fracture by 86% & non-vertebral fractures by 43% after 18 months.
  - ✓ Should be avoided in conditions same as in case of teriparatide.
  - ✓ Advantage over teriparatide – cost is half.
  - ✓ S/E – dizziness, nausea, headache, palpitation, fatigue, vertigo, upper abdominal pain, OH, hypercalcaemia, urolithiasis, (osteosarcoma in rats).

- Emerging therapies:
  - Anti-Sclerostin MAB – Sclerostin is a protein secreted by osteoclasts to reduce bone formation by interfering proliferation and function of osteoblasts.
    - ✓ Romosozumab – (210 mg SC monthly) rejected approval in 2017 for higher rate of serious CV events.
    - ✓ Blosozumab & BPS804 are being developed.
  - Odanacatib – is a selective inhibitor of Cathepsin K (CatK), which is a protease produced by osteoclasts to promote degradation of collagen in bone. Inhibiting CatK decrease bone resorption. But this was discontinued in 2016 due to increased risk of stroke.

COST-EFFECTIVENESS OF TREATMENT OF OSTEOPOROSIS:

- Treatment intervention threshold:
  - ✓ Absolute 10-year hip fracture probability of 3% for women and 3.5% for men.
- WTP (willing to pay) Cost per QALY threshold:
  - ✓ For anti-resorptives $50000 and anabolics $150000.
- ICER (incremental cost-effectiveness ratio) per QALY for:
  - ✓ Alendronate – $11,600
  - ✓ Risedronate – $22,068
  - ✓ Zolendronic acid – $27,018
  - ✓ Denosumab – $85,100
  - ✓ Teriparatide – $ 43,440 (compared to zolendronic acid).
  - ✓ Teriparatide & Alendronate sequential – $ 156,500
- Bisphosphonates - are the most cost-effective treatment for osteoporosis.

CONCLUSION:

- With the progressive rise of elderly population, Osteoporosis is a common and growing problem globally causing > 8.9 million fractures annually.
- Osteoporotic fractures will contribute a substantial economic burden on health care systems.
- There are too many guidelines from the Societies of Physicians, Endocrinologists, Rheumatologists, Orthopaedicians and Gynaecologists, but no consensus guideline available globally.
- Bisphosphonates remain the first-line and most cost-effective treatment option for osteoporosis.

- New medications with novel modes of action to treat osteoporosis are emerging and expected in the near future.
- Osteoporosis and it's most serious complication "fracture" are preventable through proper diet, lifestyle and fall prevention interventions.

REFERENCES

A) Article - Osteoporosis: A Review of Treatment Options – Kristie N. Tu et al. P & T: February 2018; Vol. 43, No. 2

B) Osteoporosis Guidelines:

1) Osteoporosis Overview – NICE Pathways (2017)

2) AACE/ACE Clinical Practice Guidelines for the Diagnosis and Treatment of PMO – 2020 Update.

3) Osteoporosis Guidelines: Screening, Diagnosis, Treatment (2021) @ emedicine.medscape.com

C) Landmark Trials on Osteoporosis:

1) FIT (Fracture Intervention Trial) (1997) (Alendronate).

2) MORE (Multiple Outcomes of Raloxifene Evaluation) Trial (1996-99) (Raloxifene).

3) WHI (Women's Health Inititive) Study (2002) (Estrogen).

4) SOTI & TROPOS Trials (2000 - 2008)(Strontium Ranelate) .

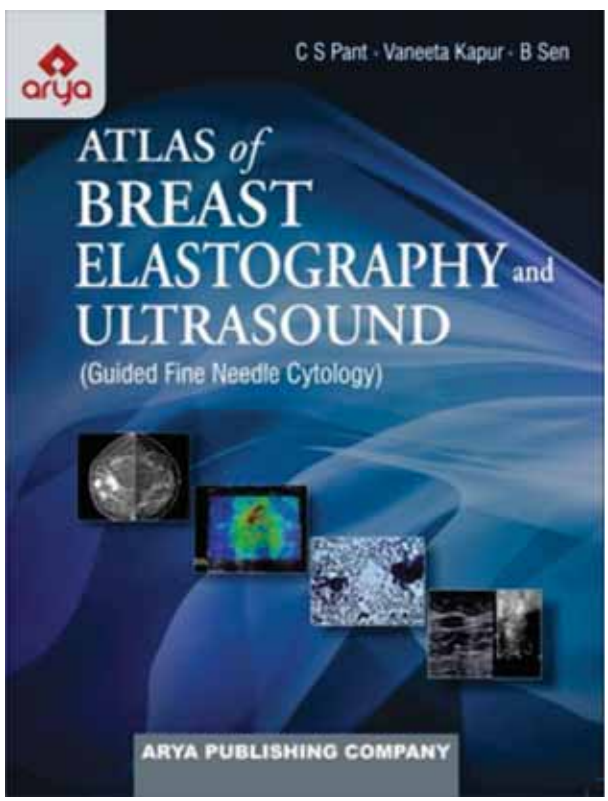
5) FPT (Fracture Prevential Trial) (2005) (Teriparatide).

6) FREEDOM Trial (2009) (Denosumab).

7) FRAME Trial (2016) (Romosozumab).

Atlas of Breast Elastography and Ultrasound (Guided Fine Needle Cytology)

When we talk of Breast Imaging in India, the one name that comes to our mind is Dr. Col. Chandrashekhar Pant. Dr.(Col.) Pant is a pioneer in breast imaging and interventions in India and is the founder President of the Breast Imaging Society, India. Through his career spanning over the last four decades, Dr.(Col.) Pant has mentored and educated innumerable radiologists across the country. He is a national faculty of repute and has been an invited speaker at various national and international conferences. Dr.(Col.) Pant has done remarkable work towards Breast Health Awareness in India through his NGO "Aarohi". Over the years that I have known Dr. (Col.) Pant, my respect and admiration for his work has grown by leaps and bounds.



Elastography; what was once a modality to support imaging findings for liver and renal masses has now become an important tool for diagnosis for breast masses. Through this book, Dr.(Col.) Pant has shared his in valuable experience about Elastography and Fine Needle Aspiration Cytology (FNAC).The book defines the significant role elastography can play in deciding if an indeterminate breast mass warrants a biopsy or not. The book also emphasizes the role and technique of FNAC in evaluation of breast masses. FNAC is a cost-effective technique for tissue diagnosis, that shall continue to remain relevant in a country like ours, where patients have to bear the healthcare cost out-of-pocket.

I am confident that Dr. (Col.) Pant's years of experience and compilation of his work in this comprehensive"ATLAS OF BREAST ELASTOGRAPHY AND ULTRASOUND GUIDED FINE NEEDLE ASPIRATION CYTOLOGY" will serve as a hands-on practical guide for radiologists practicing breast imaging and interventions in India and overseas. I believe, it is through books and literature that we pass on our legacy to our next generation and I am glad I could contribute to this excellent initiative in a small way.

I wish Dr. (Col) Pant my best wishes in his endeavour towards education in Breast Imaging and Interventions and I urge the readers to make the most from the vast experience that Dr. (Col.) Pant has shared with us in the form of well-illustrated images and simple, lucid language.

Dr. Deepak Patkar
Immediate Past President,
Indian Radiological & Imaging Association.
Director, Medical Services & HOD, Department of Radiology,
Nanavati Max Super Speciality Hospital, Mumbai.

News from Vijayapura

A welcome ceremony for the Postgraduate students admitted in the Department of Geriatric Medicine, Shri B. M. Patil Medical College, Hospital & Research Centre, Blde (deemed To Be University), Vijayapura was organized on 10th March 2022.

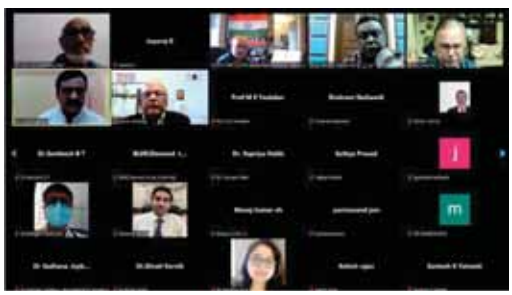
Dignitaries present were Dr.R. S. Mudhol, Honourable Vice-Chancellor BLDE DU

Guests of Honour, Dr. Aravind Patil, Dean, Faculty of Medicine, Dr. Arun Inamdar, Dean, Faculty of Allied Health Sciences , Dr. S. V. Patil, Vice Principal, Dr.Anand P.Ambali, Professor of Medicine & Coordinator Dr. R. M. Honnutagi, Medical Superintendent.

Nanomedicine and respiratory diseases

The Department of Medicine, Geriatric Clinic had organized a webinar on 31/01/2022. The Guest faculty was Dr. Prabhakar V Rao, Emeritus Professor of Respiratory Medicine at M N R Medical College Sangareddy.

The programme was jointly organized by SARS, API, NPHCE & GSI Delhi. The topic for discussion was "Nanomedicine and respiratory diseases". The Chairpersons were Dr. M E Yeolekar Mumbai and Dr. Satya Prasad from Bangalore. Dr. Anand P. Ambali, Vice President of GSI welcomed the gathering. Dr. O. P. Sharma, General Secretary of Geriatric Society of India gave a preamble to the topic, Dr. Kaushik R Das, President of GSI narrated the importance of Caregiver and Challenges, while Dr. R. M. Honnutagi, Medical Superintendent elaborated on the services of our geriatric clinic. Dr. Prabhakar Rao discussed



in detail the historical aspects, evolution, mechanism of action, technology use in developing Nanomedicines, and its utilization in various clinical disorders like Alzheimer's, Parkinsonism, Cystic Fibrosis, Diabetes, and Ageing phenomenon. A total of 44 delegates participated in the programme. Dr. V. G. Warad conveyed vote of thanks.

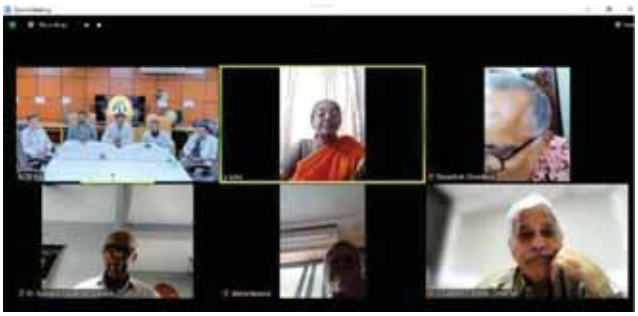
End of Life Care

The Department of Medicine, Geriatric Clinic organized a webinar on 24/02/2022. The Guest faculty was Dr. Kapil Zirpe, Head, Dept. Neuro Critical Care, Ruby Hall Clinic, Grant Medical Foundation, Pune (India). The programme was jointly organized by API, NPHCE & GSI Delhi. The topic for discussion was "End of Life Care". The Chairpersons were Dr. M. V. Jali, Medical Director & Chief Executive KLES Dr. Prabhakar Kore Hospital & Medical Research Centre, Belagavi and Dr. Satish Gulati, Senior Consultant Physician, Bharat Nursing Home, Rohtak. & Former President, GSI.

Dr. Anand P. Ambali, Vice President of GSI welcomed the gathering. Dr. O. P. Sharma, General Secretary of Geriatric Society of India gave a preamble to the topic, Dr. Kaushik R Das, President of GSI narrated the importance of End of Life care, while Dr. R. M. Honnutagi, Medical Superintendent elaborated on the services of our geriatric clinic. Dr. Kapil Zirpe elaborated concepts of End of life care, legal issues, behavior and attitude by doctors, policies in a given hospital, counselling and respect for the family members of the diseased, and the role of the team as a whole. A total of 54 delegates participated in the programme. Dr. V. G. Warad conveyed vote of thanks.

Roadmap in Geriatric Care

The Department of Geriatric Medicine jointly with API, NPHCE & GSI Delhi organized a webinar on 28 April 2022. The Guest faculty was Dr. K R Gangadharan, Medical Director, Heritage Foundation, Hyderabad. The topic for discussion was "Road Map in Geriatric Care". The Chairpersons were Dr. Usha G, Professor of Geriatric Medicine, Madras Medical College Chennai and Dr Rajendra Metgudmath, Prof and HoD, ENT dept, JNMC Belagavi. Dr. Anand P. Ambali, Vice President of GSI welcomed the gathering. Dr Muddasir Indikar introduced the speaker. Dr O P Sharma, General Secretary of GSI gave his opening remarks while Dr. Kaushik R Das, President of



GSI narrated the importance of Road Map in geriatric Care. Dr.K R Gangadharan in his speech discussed the evolution of geriatric care cross Globe and in India in last three decades, challenges he faced in establishing geriatric care, his role in policy making in Indian context, what is the ground situation of elderly in India and the challenges that we will be facing in next decade.

A total of 50 delegates (45 online + 5 offline) participated in the programme.

Dr. M Abrar Ul Huq conveyed vote of thanks.

The Youtube link to the program I https://youtu.be/Is-kWb3_AMQ

Diabetes in Elderly

The Department of Geriatric Medicine, had organized a webinar on 23/03/2022

The Guest faculty was Dr. J K Sharma, Medical Director, Central Delhi Diabetes Centre, New Delhi. The programme was jointly organized by API, NPHCE & GSI Delhi.

The topic for discussion was "Diabetes in Elderly" The Chairpersons were Dr. V A Kothiwale, Registrar, Dr Prabhakar Kore Hospital & Medical Research Centre, Belagavi and Dr. Sandeep Tamane, Consultant Physician & Geriatrician, Deenanath Mangeshkar Hospital Pune.

Dr. Anand P. Ambali, Vice President of GSI welcomed the gathering.Dr. Kaushik R Das, President of GSI narrated the importance of Diabetes in elderly, while Dr. R. M. Honnutagi, Medical Superintendent elaborated on the

services of our geriatric clinic.Dr.J K Sharma elaborated details of diabetes in elderly, atypical presentation, diagnostic challenges, complications and its management. A total of 72 delegates participated in the program.Dr. M Abrar Ul Huq conveyed vote of thanks.

Health Awareness Talk for Senior Citizen

The Faulty of Department of Geriatric Medicine was invited to address the senior citizens of Padmashri Kaka karkhanis Senior Citizen forum on 10/4/2022 The topic of discussion was "Health issues in senior citizen – protection and prevention".

Chairman of the forum Shri Karadi welcomed the gathering. Dr Anand P Ambali addressed the senior citizens on various health issues, atypical presentations of the diseases, red flag signs to consult a physician, importance of regular health check-up, services provided by BLDE DU and prevention of various diseases in elderly. The services of Dementia Clinic, Immunization Clinic, Library for Senior citizen were emphasized. Around 35senior citizens attended the program. Shri M M Bidari Secretary presided and gave his presidential remarks.

Tuberculosis Among Senior Citizens

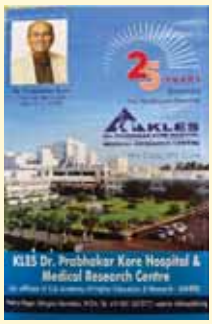
The Geriatric Clinic, Department of Medicine of BLDE Deemed to be University Shri B.M. Patil Medical College Hospital and Research Centre in collaboration with District Health and Family Welfare Services and District Tuberculosis Office organized a program to create awareness regarding tuberculosis among senior citizens. This being a promising national program of the Government of India to eradicate the disease tuberculosis from India by 2030, the Vijayapura district administration has taken the initiative to free Vijayapura from Tuberculosis by 2025, In this regard, a program to create awareness was organized on 5 March 2022 at BLDE DU Shri B M Patil Medical College Hospital.

Dr. Iranna Dharwadkar, District Tuberculosis officer elaborated in detail about the presentations of Tuberculosis, diagnosis, management, and all the government schemes.

tuberculosis. He emphasized various healthy habits in preventing the spread of Tuberculosis. He also requested to help remove the stigma attached to the disease in the community.Dr. Anand P.Ambali, Geriatric clinic discussed in detail regarding the typical and atypical symptoms of tuberculosis in senior citizens due to which there is a delay in diagnosis and treatment. Shri Bhartesh G. Kalagond, who is the chairperson of Karnataka State Retired Employees Society, Vijayapura District shared the stories of the people who have suffered from tuberculosis in the last three decades and the suffering of their families. Mr Imam Kalburgi welcomed the gathering. Dr. Sawant proposed a vote of thanks.

News from Belgavi

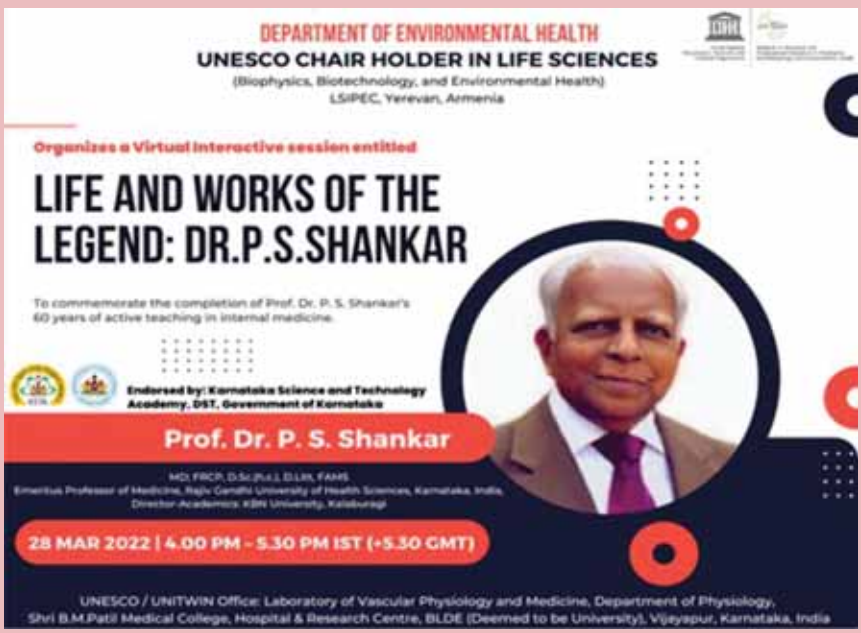
"Focus on Medical Education and Health Issues" by Dr. P. S. Shankar. Book released by Dr. Prabhakar Kore, Chairman KLE Society & Chancellor KAHER.

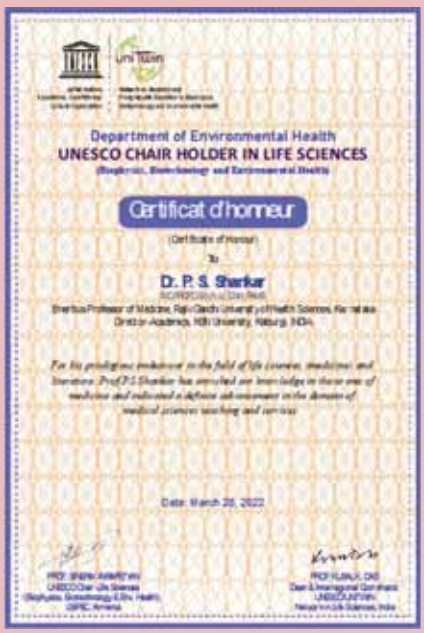


News from Kalaburagi

Congratulations Nadoja Dr P.S.Shankar

Life and the works of the Legend Dr P S Shankar: An Interaction with UNESCO Chair to commemorate Sir's 60 years of teaching in Internal Medicine





News from Kolkata

Congratulations Dr. Kaushik Ranjan Das.

Our President Dr. Kaushik Ranjan Das received

Hall of Fame Award

at PTW-CON 2022 (an organization of more than 2 thousand doctors from Indian & abroad) at Hotel ITC Royal Bengal, Kolkata on 13th March 2022 for his contribution in Geriatrics

GSICON'21 Report

GSICON 2021
(17th International Conference on Geriatrics and Gerontology)

Report by Dr. Kaushik Ranjan Das & Dr. Krishnanjan Chakraborty

GSICON 2021 (17th International Conference on Geriatrics and Gerontology) has been convened on 19th & 20th February 2022 in Hybrid mode , being organized by Geriatric Society of India West Bengal Branch . Sequence of events are – Opening of Scientific deliberations, scientific sessions, Inauguration of the conference, General Body meeting and valedictory.

Scientific sessions has been opened at 10 am after short welcome address from organizing secretary, Dr.Krishnanjan Chakraborty, Organizing Chairman, Dr. Chinmoy Kumar Maity and President GSI Dr.Kaushik Ranjan Das. The conference has been participated by more than 700(seven hundred) delegates and faculty and has been a great success.

Scientific Deliberations :

Orations : Four orations have been presented-

(1) Presidential Oration – Dr.Kaushik Ranjan Das

(2) Sri. Sunku Subramanyam Memorial Oration- Dr. Chinmoy Kumar Maity

(3) Dr J J Rao Oration- Dr. M G Krishnamurty

(4) Dr K C Mohanty Oration – Dr. Arunansu Talukdar

Details of Scientific Sessions as follows-

Presidential Oration, Caregivers in geriatric care: A high priority issue, Speaker- Dr Kaushik Ranjan Das, Chairpersons- Dr.Sushanata Ghosh (Bangladesh),Dr.Prabha Adhikari; Clinical assessment of older people, Speaker- Dr Anand P Ambali ,Chairpersons- Dr.Debashis Chatterjee ,Dr.Sajesh Asokan ; Diastolic heart failure: A hidden threat in geriatric population, Speaker- Dr Jayanta Sharma , Chairpersons- Dr.Purna Chandra Dash, Dr.Biswajit Ghosh Dastider; Acute exacerbation of COPD : Management at home settings, Speaker- Dr Agam Vora, Chairpersons- Dr.Jayanta Kumar Panda, Dr.Sanjeeb Kakati ; Sri Sunku Subramanyam Memorial Oration: Treatment of Osteoporosis: A stitch in time saves nine, Speaker- Dr Chinmoy Kumar Maity, Chairpersons- Dr. Ramnathan Iyer, Dr. Asoke Das; Changing concept of Geriatric Care , Speaker- Dr O P Sharma, Chairpersons- Dr. Vivek Handa , Dr.V.K. Arora ; Ethical dilemma in elderly research, speaker - Dr Prativa Pereira, Chairperson- Dr.Balaji Asegaonkar ; Dr J J Rao Oration:COVID lungs, Speaker- Dr M G Krishnamurty, Chairpersons- Dr.P.S.Shankar,Dr.Nikhil Sarangdhar; Decade of Healthy Aging, Speaker- Dr.Atreyi Ganguli (WHO Professional Officer), Chairpersons- Dr. Arunansu Talukdar, Dr. Kaushik Ranjan Das; Fall, near fall and fear of fall, Speaker- Dr P S Shankar, Chairperson- Dr. H.S.Pathak; Neurological emergencies in geriatric population, speaker- Dr Partha Ray, (UK), Chairpersons- Dr. Pranjal Kumar Dutta, Dr.Krishnendu Ray; Non-motor symptoms of Parkinson's disease, Speaker- Dr Arup Bhattacharya, (Australia), Chairperson- Dr. B.K.Mondal; Dementia spectrum: Definition types and clinical features, Speaker- Dr Sachin Desai, Chairpersons- Dr.Varsha Reddy, Dr. Mainak Gupta ; Dementia: Diagnosis and treatment, Speaker- Dr Kausik Majumdar ,Chairpersons- Dr. Pradnya Mukund Diggikar, Dr. Garima Handa; Psychotic symptoms in the elderly: How to approach and treat, speaker- Dr Bappaditya Choudhury, Chairpersons- Dr. Sudhir Kumar, Dr. Aniruddha De; Approach to anaemia in the elderly, Speaker- Dr A K Singh, Chairpersons- Dr. Lochana Shrestha (Nepal), Dr.J.K. Sharma; Geriatric Care: A Collaborative Partnership Approach, Speaker- Dr Dhires K Chowdhury, Chairpersons- Dr.(Col) Pamod Kumar, Dr. Krishnanjan Chakraborty; Case Presentation-Geriatric Patient. Speaker- Dr. Ramnathan Iyer, Chairpersons- Dr. Purna Chandra Dash, Dr.Chinmoy Kumar Maity; COVID 19 Therapeutics- Where We Stand Now ? Speaker- Dr Shambo Samrat Samajdar, Chairpersons- Dr.Santanu Kumar Tripathi, Dr.Prabha Adhikari; Glycemic control in the elderly: How to set the target, Speaker- Dr J K Sharma, Chairpersons- Dr.M.V. Jali, Dr.Ravi Kant Saraogi ; Atypical presentation of hyperthyroidism in the elderly, Speaker-Dr Rahul

Bhattacharyya, Chairpersons- Dr. Chiranjib Bagchi, Dr. Manash Kanti Das (USA) ; Dr K C Mohanty Oration-Elder's Abuse-Untold Story. Speaker- Dr Arunansu Talukdar, Chairpersons- Dr. Taruni Ngangbam, Dr. Garima Handa; Rational antibiotic choice in the elderly in OPD setting, Speaker- Dr Prabha Adhikari, Chairpersons- Dr.Anil K Manchanda, Dr. Surendra Daga; Microbiome in Elderly: How does it matter, Speaker- Dr M E Yeolekar, Chairpersons- Dr.O.P. Sharma, Dr.V.K.Arora; Rheumatological disorders of the elderly, Speaker- Dr B G Dharmanand, Chairpersons- Dr. Parvaiz A Koul, Dr. Sajesh Asokan; Armaments in rheumatological treatment: Time tested medications and the newer ones, Speaker- Dr Suddhasatwya Chatterjee, Chairpersons- Dr.Sudhir Kumar, Dr.Sachin V. Desai

Chronic Diarrhoea in the elderly: evaluation and management, Speaker- Dr Soumik Ghosh, Chairpersons- Dr.Santosh Swain, Dr.Shankha Shubra Sen; Urinary Incontinence in the elderly: An overview, Speaker- Dr Sandeep P Tamane, Chairpersons- Dr. Samudra Gooptu, Dr.Mohit Sharma; Changes in Treatment of Tuberculosis in 2022, Speaker- Prof. (Dr.) Rajendra Prasad, Chairperson- Dr.P.V.Pravakar Rao. Masters of the Hall have been Dr. Dhires Kumar Chowdhury and Dr. Krishnanjan Chakraborty.

Inauguration Ceremony

Chief Guest, Brahmachari Mural Bhai (Secetary Adyapeet Ramkrishna Sangha, Kolkata) inaugurated the conference by lighting of lamp, Saraswati Bandana was played . General Secretary GSI- Dr.O.P.Sharma presented annual report of GSI. The ceremony was addressed by the Chief Guest, Respected Patrons GSI- Dr. P.S.Shankar & Dr.V.K.Arora, Respected Advisors GSI- Dr. M.V.Jali & Dr. Vivek Handa , President GSI- Dr.Kaushik Ranjan Das, General Secretary GSI- National Prof. Geriatrics, Dr. O.P.Sharma , Patron GSI WB branch – Dr.H.S.Pathak, Advisors GSI Eastern Zonal branch-Dr. Sanjeeb Kakati & Dr. Jyotirmoy Pal. Vote of thanks given by Chairman GSI WB Branch-Dr. Chinmoy Kumar Maity. A book titled –"A Guide for a Geriatric Social Worker(Caregiver)" has been released at the inauguration ceremony by Chief Guest Brahmachari Mural Bhai.

General Body Meeting: Started at 6.40pm , Chaired by President GSI-Dr.Kaushik Ranjan Das,the house observed 0ne minute silence in honour of our departed esteemed member, Dr. A.K.Prasad and B.B.Puri. The meeting adopted some resolutions. Dr.O.P.Sharma presented his annual report to the house and the house adopted it.

Veledictory Session: Dr. Krishnanjan Chakraborty, Dr, Aniruddha De, Dr. Mainak Gupta , Dr. Rahul Bhattacharyya and Dr. Suddhasatwya Chatterjee have been felicitated by President GSI- Dr. Kaushik Ranjan Das. Vote of thanks given by Dr. Mainak Gupta and the conference was closed.

With Best Compliments From

Dr. Satish Gulati
M.D.F.I.C.P., F.I.A.M.S., F.G.S.I.
Consultant Physician & Geriatrician
Cell: +91-9812026168

Dr. (Mrs.) Rita Gulati
M.D., D.G.O., F.I.A.M.S.
Consultant Obstetrician & Gynaecologist
Cell: +91-9896342097

Dr. Dishant Gulati
M.B.B.S. M.D. (Medicine)
Consultant Physician
(Former Assistant Professor SGT Medical College, Budera (Gurgaon)
Cell:+ 91-8930198124

Ms. Divya Gulati
Computer & Administration In-Charge
Cell: +91-9996233397

Bharat Nursing Home

Sonipat Road, Rohtak-124001, Haryana

Equipped with Gynae, Internal Medicine, Pediatric,

Sonography, Biochemistry, I.C.U. & Psysiotherapy Services

Ph: 01262-256955, 01262-313955, 09315507729

DELENG/2012/42798 Dt. 12 June 2012
Price Rs. 20 per copy

All Members are Requested to
Kindly update their
Email ID / Telephone No:
by sending mail to
secretariat office of GSI.