


IJGC


INDIAN JOURNAL OF GERIATRIC CARE

MAY-AUGUST 2019, VOL. 8 NO 2



HIGHLIGHTS

Digital Technology in Geriatric Health: 
A Concise Review

Facing The Challenge of Degenerative 
Disease of The Spine



Date: 14 - 15 September 2019



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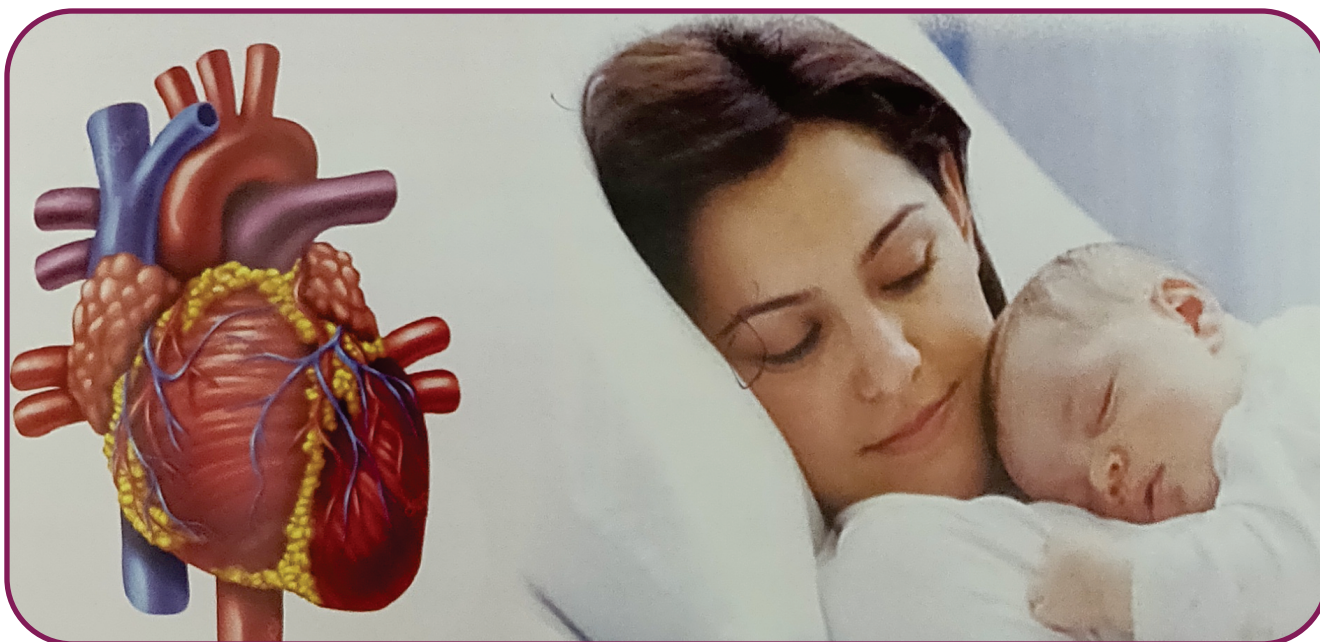
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Subscription Information:

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.

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Edited, printed and published by:

Dr. O.P. Sharma, for The Geriatric Society of India, K-49 Green Park Main, New Delhi-110016.

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

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Gadgets For Elderly

Advancements in health care facilities, good nutrition and a healthy lifestyle have dramatically increased the life expectancy in the 21st century leading to an increase in the elderly population. As per National Economic Survey 2018-2019 presented in the parliament by the honourable finance minister, the share of elderly (60 years and above) in the population will rise rapidly from 8.6% in 2011 to 16% by 2041. These changes will have major implications for policy makers and healthcare providers.

With the increase in life expectancy and increasing geriatric population, there will be increase in cases with clinical ageing problems and geriatric syndromes. Physicians caring for older adults must have skills in managing multiple comorbidities. A holistic solution for these ever-increasing demands lies in the incorporation of digital technology and devices-trackers in prophylactic and therapeutic health care. A smartphone can be used, with a number of apps available for either solo use or with add on equipments. Elderly GPS Tracking devices can help caregivers and family to prevent the danger of wandering. Dementia GPS tracking watches and GPS smart sole can provide real time tracking of a user via satellite monitoring. Diapers with enuresis detector for incontinence, mobile diabetes monitoring and hypoglycemia detector, arrhythmia detector and heart attack detector for high risk cardiac patients, and Smart-e-Pants for Decubitus ulcers are some of the devices which can be of help in geriatric care.

A clinician's role is of prominent importance in healthcare but one needs to be aware of the advances in digital technology and adapt these tools to our Indian population and customize a targeted delivery system. This will promise a golden era of geriatric health for future generations to come.

Digital Technology in Geriatric Health: A Concise Review

S.V. KULKARNI¹, SAGAR SINHA², PRIYANKA JADHAV³ CHITRA S KULKARNI¹

Abstract

There is a significant growth in the elderly population in the world. The challenges of geriatric healthcare are easily noticeable in developing countries like India. Fortunately, technology has grown by leaps and bounds in the last few decades. The digital techno-bubble is still growing rapidly with recent emphasis on e-health. A lot of investment is being done in this field to develop the end-product: a mobile application (app) or add-on-device (peripheral). Various platform integrations have allowed for better connectivity and improved accessibility. Solutions are available for all aspects of healthcare. Geriatric medicine needs to quickly adapt some of these low-cost solutions which can only result in a positive influence on outcomes: clinical end-points of disease management, self-management, greater independence without increasing reliability or compromising safety and other global health issues.

Keywords: e-health, Decubitus ulcer, GCS, APGAR, NIHSS stroke scale

INTRODUCTION

India has a significant ageing population (almost 10%). According to 2011 Census, 103.9 million are aged 60+ with equal rural-urban divide. In this group, literacy rate is skewed towards urban and male categories. As per NSSO 60th round report, over a million elderly live alone or with spouse only.¹ According to TRAI, India is an upcoming super power in the world telecommunication sector marked by improved mobile connectivity, smartphones and internet use at a reasonable cost. The urban rural divide is getting patched up and the rate of growth is quite significant.²

In this era of evidence based medicine, virtually everybody is connected to the internet. A smartphone remains a massively underutilized tool which provides answers for both prophylactic and therapeutic aspects of healthcare. A holistic solution for geriatric health lies at the heart of this foundation. This is where digital technology

can prove to be a catalyst for improving care. Many permutations and combinations of smartphones are available: These apps are either for solo use, attached with add-on-equipment i.e. peripherals or may be bundled with many features in a single package. An overall summary of smartphones in medicine can be found in this cited Medicine Update chapter.³

CHALLENGES

There are classical clinical problems of ageing including geriatric syndromes: malnutrition, gait disorders/falls, disability, disease susceptible comorbidity, incontinence, decubitus ulcers, sleep disorders, delirium and cognitive impairment.⁴

Table 1 represents some digital solutions with examples for geriatric issues. These are obviously in addition to a standard of medical care and in no ways seek to replace and only supplement healthcare services.

In addition to these clinical problems, there are other practical issues: accessibility, affordability, availability, awareness and adaptability.

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Table 1: Some digital solutions with examples for geriatric issues (Figure 1-9)

Sr. No.	Challenge	Situation	Digital Solution	Example
1.	Gait Disorders	Frequent falls in patient who stays alone	1. App using accelerometer 2. Peripheral with fall detector 3. Automatic alert to family/ emergency services	- Fade detects falls using the information collected by some of your mobile sensors such as the accelerometer - designed for people who might be under risk of falling in an isolated environment without any supervision
2.	Incontinence	Urinary incontinence	Diaper with eneuris detector for patients with communication issues	- Rodger Wireless Bedwetting Alarm System : Unique moisture sensing briefs, alerts- compact and lightweight wireless transmitter works up to 75 feet
3.	Disease susceptible comorbidity	Diabetic patient on poly-therapy High-risk cardiac patient	1. Hypoglycemia detector 2. Mobile Diabetes monitoring 1. Arrhythmia detector 2. Heart attack detector	- Hypoband , simple device that detects cold sweat induced by hypoglycaemia, sends alert- has a panic button - AliveCor can be attached to a smartphone and along with its app AliveECG , it can detect arrhythmias, send alert immediately - FDA approved for remote detection of atrial fibrillation
4.	Decubitus ulcers	Bed-ridden patient	1. Smart clothing-linen system	- Smart-e-Pants : system comprised of stimulator, electrodes, undergarment - electrodes deliver stimulation frequently, causing the gluteal muscles to contract and redistribute seating pressure
5.	Cognitive impairment	Assessment and follow up	Neuropsychological test battery component	Color-shape test ⁵

Using smartphone touch technology and vision can be real life accessibility issues for the elderly. Basic smartphone models and senior-citizen friendly equipment are simple solutions which are already available in the market. A significant literacy gender gap remains in the elderly. Catering to this segment is a major challenge. But many of the applications can be pre-set by the spouse/caretaker;

independence, reliability, safety and quality of life can still be improved. Improving digital literacy can be done with help of family especially techno-savy members in the household. Telehealth also has validated applications in this group.⁶

Cost-benefit analysis of the technology is a key aspect of determining affordability. However, this cannot be measured in just a financial number since benefits are hard to quantify using traditional scoring systems. Many of these systems have had successful feasibility studies including the Indian scenario.⁷

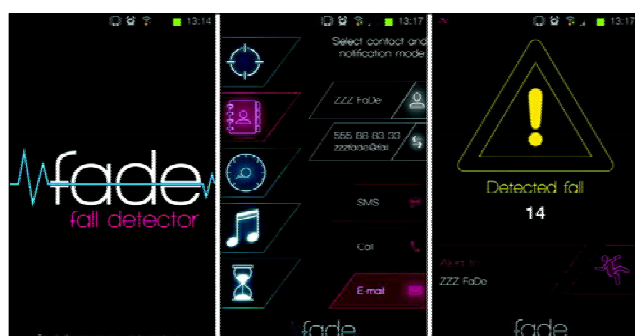


Figure 1. Fade:

Source: <https://play.google.com/store/apps/details?id=com.iter.falldetector&hl=en>

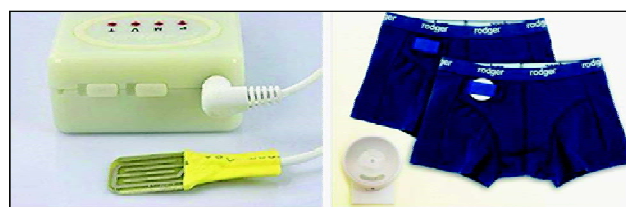


Figure 2. Rodger Wireless Bedwetting Alarm System:

Source: <http://www.rodger.nl/en/products/bedwetting-alarm-system>

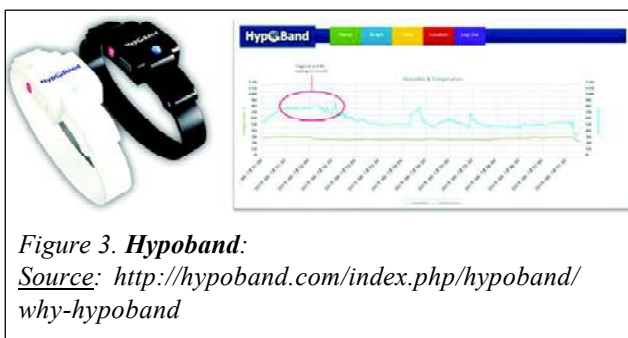


Figure 3. **Hypoband:**

Source: <http://hypoband.com/index.php/hypoband/why-hypoband>

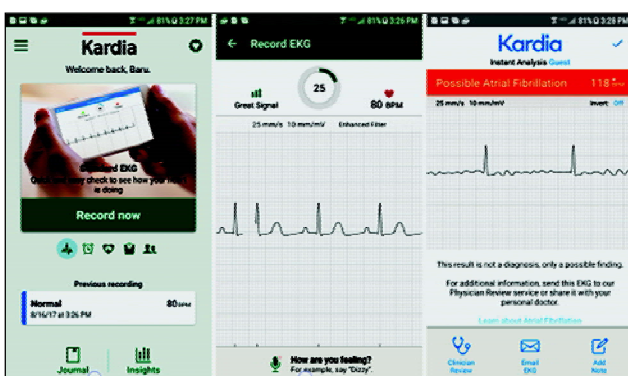


Figure 4. **AliveCor-Kardia:**

Source: <https://play.google.com/store/apps/details?id=com.alivecor.aliveecg&hl=en>

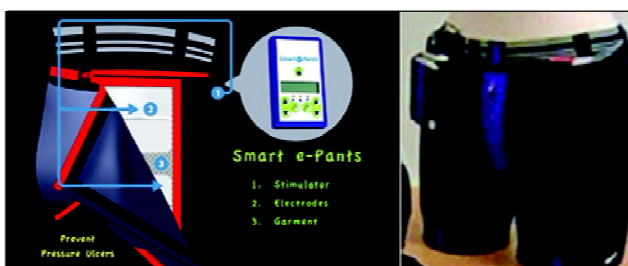


Figure 5. **Smart-e-Pants:**

Source: <http://smartneuralprostheses.med.ualberta.ca/team-news/smart-e-pants-a-new-tool-to-prevent-pressure-ulcers.html>

A lot of work still needs to be done to cater to the adaptability especially to address the rural-urban wherein access to basic healthcare remains a critical problem. However, mobile technology penetration is quite significant even in rural areas. In pure business terminology, this remains as a major untapped market.

System-wide solutions have to be found starting first with awareness: government, health-care bodies, physicians, allied staff and patients. Only then can an attempt be made for horizontal and vertical integration of entire system for



Figure 6. **Color-shape test**

Source: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0065925>



Figure 7. **Senior citizen friendly phone equipment:**

Source: <http://gadgets.ndtv.com/mobiles/features/five-senior-citizen-friendly-phones-available-in-india-609985>



Figure 8. **TabSafe:**

Source: <http://www.tabsafe.com/product/>

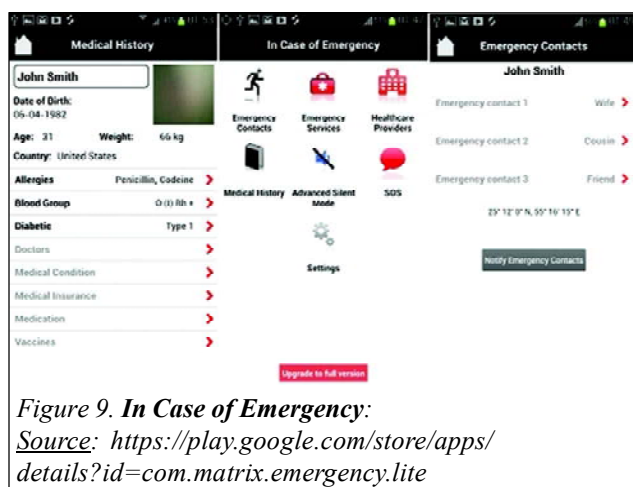


Figure 9. In Case of Emergency:

Source: <https://play.google.com/store/apps/details?id=com.matrix.emergency.lite>

geriatric healthcare. Detailed studies need to be undertaken to assess mobile information technology in the elderly. Valuable insight can be gained from such endeavours.⁸

A few examples of bundled apps are **Medscape**, **UpToDate**, **Omnio** (formerly Skyscape) and India's very own **Ashwinee**. **MPR** (Monthly Prescribing Reference), **Epocrates** and **Quick Rx** are apps designed for the doctor for pharmacological use primarily. These bundled apps integrate many aspects of patient care.

Many medical calculators are available out there. **Calculate (Qx)**, **Archimedes (Epocrates)** are next-generation medical calculators and decision support tools, freely available to the medical community. eGFR can be widely used and can help in all patients of acute or chronic renal disease. Age old scores like GCS and APGAR can be easily handled bedside with great convenience. The complicated 42 point **NIHSS** stroke scale can be completed in less than 1 minute via dedicated intuitive apps and can determine prognosis and therapeutic response. A great area of focus today is on lifestyle preventive diseases. A variety of risk-stratification calculators are widely available and easily accessible via these apps. For example, Framingham's risk score and **ASCVD calculator**.

Practo provides healthcare solutions for healthcare providers and consumers. **Practo Search** lets patients to browse through doctor profiles online and book appointments, while **Practo Ray** serves as a practice management solution for healthcare providers to manage patient data and digital healthcare records.

MANAGEMENT

Current evidence-based models of care coordination for older patients include: interdisciplinary primary care, case

Table 2: Digital solutions with examples for supplementing current care models at patient level

Sr. No.	Current care model	Situation	Digital Solution	Example
1.	Preventive home visits	Palliative care	Remote vitals monitoring	Apps like iBP , Blood Pressure Watch and Real Blood Pressure (BP) Calc allow the user to log-in their ambulatory BP charting - graphical representation - provides range and warning lines - convenient sharing capabilities, allowing physicians to monitor data closely
2.	Pharmaceutical care	Filling prescription, polytherapy, compliance issues	1. Online pharmacy 2. Smart pill, e-box 3. Medication reminder	- 1 mg , Netmeds are licensed online pharmacists offering prescription medicines across India including low-cost generic drug alternatives, delivers in 3-7 days - TabSafe : medication management system reminds the user, dispenses medications, alerts caregivers before a dose time is missed, and monitors adherence
3.	Self-management	Diabetic patient	Sugar monitoring	Management can be eased by many free apps available- Glucophone , On track , Gatherhealth , Glucosentinel , Glucose mate , Sensei , Wave sense and DM Buddy
4.	Coordination	Multiple: cities, doctors, institutions	Electronic health identity card	- MyChart allows you to access your medical records on your phone at any time, sending message to clinic, scheduling, requesting prescription refills

management, disease management, preventive home visits, comprehensive out-patient assessment and management, pharmaceutical care management, chronic disease self-management, preventive rehabilitation, caregiver services, hospital discharge/transition coordination, hospital at home, nursing home care coordination, hospital delirium comprehensive care and comprehensive in-patient assessment and management.⁴

Table 2 represents some digital solutions with examples for supplementing current care models at patient level.

Pain is one of the most common complaint among older adult populations. This phenomenon may stem from the fact that disorders (e.g., osteoarthritis, postherpetic neuralgia, and back pain), disproportionately affect older adults compared to other age groups. Chronic non-cancer pain (CNCN) constitutes a major health problem, remains under recognized and under treated in the elderly. Second, the management of CNCN among older adults can be especially challenging because of age-related physiological changes that increase sensitivity to pain medications, as well as the problem of multi-morbidity that is common in later life. Given the prevalence and treatment challenges associated with CNCN among older adults, new approaches are needed to address the problem. Telemedicine may provide such an approach and efforts are already well underway to incorporate new telemedicine tools into the overall health care of geriatric populations.⁹

Mobile devices equipped with drug reference software may help prevent adverse drug events in the nursing home by providing medication information at the point-of-care. Quantifying their use and perceived benefits have been studied and helpfulness has been proven.¹⁰

A lot of apps have been designed for 'Emergency' or 'First Aid' situations. These allow the rescuer or even the patient to rapidly connect to the nearest hospital or track ambulances in the area. In the meanwhile, emergency first aid care can be initiated without delay for the patient. A few examples are **First Aid Emergency & Home** and **iTriage Health**.

The main established technological innovation in home care services for older people is the personal emergency response system, which is widely adopted and used throughout most western countries aiming to support 'ageing safely in place'.¹¹

CONCLUSION

A clinician's role is paramount in delivery of healthcare. Clinical acumen and empathy are non-technical, however one needs to be aware of the advances in digital technology. Besides keeping up the pace of change of technology, we need to adapt these tools to our Indian population and customize a targeted delivery system particularly to this group of our ageing population. We will not cheat time or death ourselves and when we find ourselves at the receiving end of this spectrum, we would hope that our needs are catered to the best possible solution. But the journey to this path must begin now so that not just us but future generations to come receive a promised golden era of geriatric health.

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Facing The Challenge of Degenerative Disease of The Spine

HN BAJAJ

Abstract

Degenerative disease of the spine include disc diseases, spinal stenosis, osteoporosis, fragility fractures degenerative spondylolisthesis, adult scoliosis, cervical and lumbar spondylitis. Osteoporosis is an inevitable process in the ageing spine, and can manifest as fractures of the spine with no trauma. Osteoporosis can coexist with osteomalacia, the adult counterpart of vitamin D deficiency. The treatment of degenerative spine disease has to be customised. The best results are when there is close collaboration between the primary care physician, or the family doctor, the spine specialist and the physiotherapy team.

Keywords: Spondylolisthesis, Disc herniation, Osteoporosis, Fragility fracture, Stir sequence

It is likely that the demographic changes that have occurred in the West, attributed to an increase in life expectancy and coupled with a decrease in the birth rate, will be mirrored in India's vast population. Other than the political and economic consequences, this transformation has healthcare implications for healthcare providers and in terms of the quality of life of the public. In the minds of the latter, cardiac issues tend to remain in constant focus, but the spine too, like other parts of the body is involved in the ageing process. The term 'degenerative disease of the spine' is a broad vehicle that carries with it all those disorders that afflict the population - disc diseases, spinal stenosis, osteoporosis, fragility fractures including vertebral compression fractures, degenerative spondylolisthesis, adult scoliosis, cervical and lumbar spondylitis. Many of these disease states are a continuum of the same disease state, and overlap exists (Figure 1).

The treatment of spinal disorders in the elderly is difficult owing to surgical issues and to medical issues. In the former surgical issues are limited tolerance of immobilisation, inadequate bone stock and poor bone quality that makes spinal fixation challenging. Included in the latter medical issues are various medical co morbidities, such as cardiac disease, diabetes mellitus, renal disease, senile dementia, multiple medications, and poor nutritional status. The

problems are compounded by social issues, family support (or lack of it), and financial woes. In contrast to the western world, there is no state sponsored social security, and no publicly funded old age homes.

Therefore the goals of treatment of spinal problems have to be realistic; in senior citizens, treatment may differ from that of a young adult. Treatment should invariably aim for early mobilisation and functional treatment. A multidisciplinary approach is preferred as it increases the likelihood of a favourable outcome.

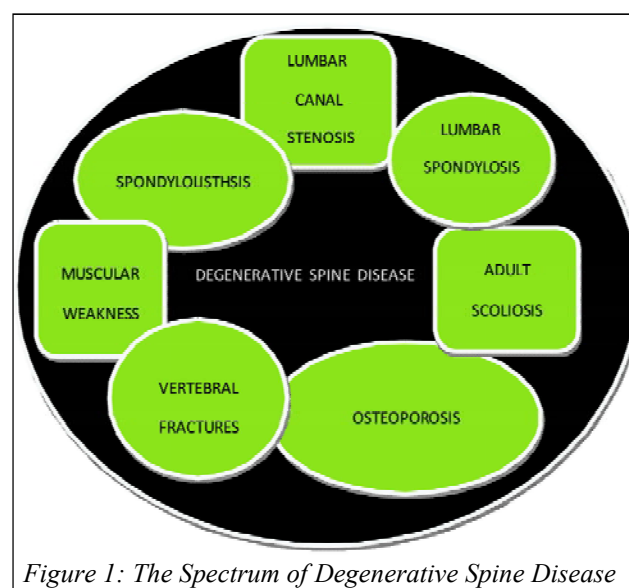


Figure 1: The Spectrum of Degenerative Spine Disease

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WHAT IS THE EVOLUTION OF DEGENERATIVE DISEASE OF THE SPINE?

Despite the fact that there can be differences in clinical presentation, and that the degree of degeneration can vary in individuals of the same age, diseases of the spine attributed to degeneration of the spine follow the same common pathway.

The anatomical features of the adult spine are well documented (Figure 2). The onset of degeneration commences early in life,¹ manifested initially by biochemical changes in the disc; radiological evidence of degeneration manifests in young adult life as progressive loss of intervertebral disc height, and disc herniation. Arthritis of the facet joints, and thickening of the ligamentum flavum are the beginning of the narrowing of the spinal canal, and is characteristically seen in the lower lumbar spine and in the cervical spine. Katoch refers to this as LCS (lumbar canal stenosis) in evolution² in the lumbar spine. With progression, further changes are seen - facet joint ankylosis, subluxation of one vertebra over the other (Figure 3), spinal instability, which leads to more thickening of the ligamentum flavum, and hypertrophy of the bony neural arch, and eventually, changes in the vertebral canal contour occur.^{3,4} This inability to maintain the osseous bony alignment of the vertebral column may manifest as spondylolisthesis or the forward slippage of one vertebra over the one below it. Typically this is seen at L4 over L5 vertebral level (Figure 3).

This change is a three dimensional change that consists of rotation of the vertebrae and alteration in the sagittal and coronal plane balance, this manifests as adult scoliosis (Figure 4A & 4B). As mentioned earlier the degree of the degenerative process is not the same for everyone. It is unclear why this

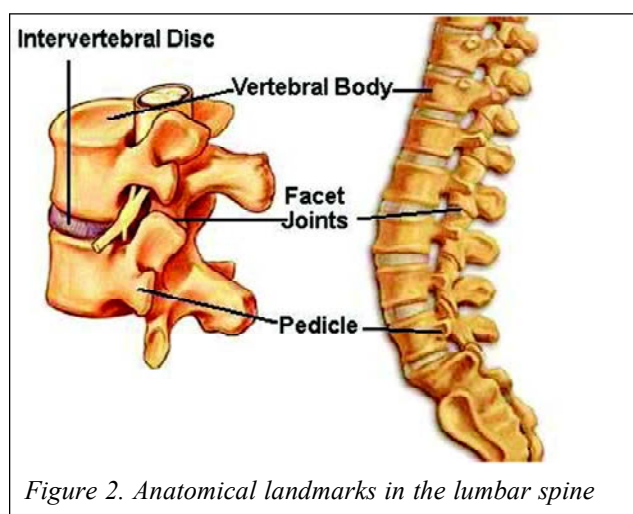


Figure 2. Anatomical landmarks in the lumbar spine

individual variation occurs. The answer to the question as to why it is incapacitating in some and minimal in others is as yet not clearly available. But what is clear is that the goal of treatment is to enable the patient to maintain a respectable quality of life. Prolonged rest in bed can only sap the morale, worsen diabetes, weaken muscles, exacerbate osteoporosis and send the patient to meet his Maker sooner.

Osteoporosis is an inevitable process in the ageing spine, and can manifest as fractures of the spine with no trauma. The mundane acts of day to day life can cause the spine to fracture, and the word that has been coined to describe these is fragility fracture, as they take place in weakened bone. Osteoporosis can coexist with osteomalacia, the adult counterpart of vitamin D deficiency.

As a point of clinical relevance, metastases to the spine are common in the ageing spine. Myeloma too can present with pain in the back, malaise, and overall weakness. Infections in the spine, particularly tuberculosis can manifest at any age, and reactivation of healed tuberculosis is known. Overall, these do not come under the purview of degenerative spine and are mentioned as part of the differential diagnosis, in the senior citizen with back pain.

INVESTIGATIONS

A MRI scout screening film that shows the entire spine, and includes the STIR sequence (this must be requested) is a method that provides a great deal of information about the spine. This is a screening procedure and in the hands of an experienced radiologist will certainly demonstrate a major spinal problem. Since it is a screening film it is relatively inexpensive.

Blood tests include a CBC, ESR, C-reactive protein, 25 hydroxy vitamin D, and Serum B12.

Further tests may be added as necessary.

TREATMENT

The treatment of degenerative spine disease has to be customised. The best results are when there is close collaboration between the primary care physician, or the family doctor, the spine specialist and the physiotherapy team. The broad principles are:

1. Pain has to be controlled. Paracetamol is safe; it can be combined with analgesic coated transdermal patches.

Strong analgesics are best avoided due to their adverse gastric and renal side effects. Pantoprazole is added if these have to be used. Simpler modalities like hot water



Figure 3: Degenerative spondylolisthesis at L4 - L5 level. D12, L1 and L2 show osteophytosis, narrowing of the disc spaces, sclerosis of the vertebral end plates, all changes of degeneration.

bottle fomentation and counter irritant pain balms are easy to use. In the presence of nerve compression resulting in radiculopathy, Gabapentin or Pregabalin is of value. These are sedative medicines and the least possible dose that is effective is used. The medication is started at night and the dose is increased gradually.

2. Correction of any deficiency state such as vitamin D or vitamin B12 is carried out.
3. Physiotherapy to reduce pain and exercises to build up back and abdomen muscles are useful. In general exercise regimes that incorporate yoga, swimming, walking, cycling on an exercise bicycle are advocated. Though degenerative spine disease is a part of the process of ageing, a physically active lifestyle defers it. Alternate therapies such as acupressure, acupuncture, reflexology may be tried.
4. Aggressive treatment of osteoporosis, using calcium, vitamin D and a bisphosphonate, such as Alendronate Sodium are needed. Weight bearing exercise such as walking is anti osteoporotic. Patients may complain about constipation after taking calcium. Teriparatide is similar to parathyroid hormone in action, and its injections act to increase bone mass and strength. Denosumab is used in severe osteoporosis to inhibit bone resorption and increase bone formation.
5. A lumbo sacral orthosis is useful in the short term; its



4A **4B**
Figure 4A & 4B: Photograph of patient with adult scoliosis. Note the degeneration present on his radiograph.

use after four weeks is best avoided as it may weaken the back muscles. The steel bars in it that make the orthosis are poorly tolerated at times, and an elastic corset may be preferred by some.

6. Epidural steroid injections that need to be given into an already tight lumbar canal are best avoided. Root blocks, radiofrequency ablation of painful facet joints are preferred by pain management doctors and by interventional radiologists³.
7. Absolute indication for surgery is pain that is worsening or that which is not responding to non operative treatment, the presence of diminished power in the hands or the legs (weakness of L4, L5 or S1 roots), and when the bowel or bladder is involved. If the patient is losing the ability to walk it is better to operate early than to await a neurological deficit in the legs. Myelomalacia is another indication for surgery. Correction of adult degenerative scoliosis is performed in carefully selected patients with adequate bone stock that permits the use of implants. Surgery of the spine has come a long way and is certainly safe in experienced hands and when done in a modern centre. Surgery is only done after thorough investigation and if the anaesthesia team find the patient fit. Techniques in spine surgery have evolved, advances in metallurgy have made available excellent implants and modern anaesthesia has come a long way in making surgery safe for the geriatric patient.

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Indraprastha Apollo Hospitals & Geriatric Society of India Organizes Geriatrics Conclave

Theme: Geriatrics In India – Opportunities & Challenges

Auditorium, Indraprastha Apollo Hospitals, New Delhi-110076

20th & 21st April 2019 : 9.00 AM - 5.00 PM



Geriatrics Conclave 2019 was organized jointly by Geriatric Society of India® & Indraprastha Apollo Hospitals New Delhi on 20-21 April 2019.

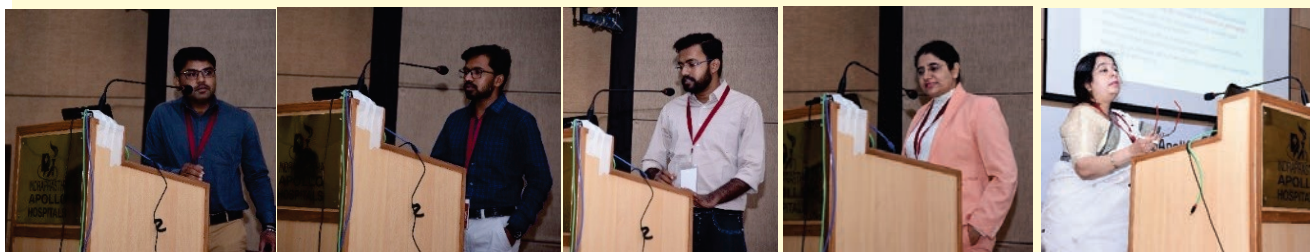
Free Paper
Judges



Free Paper
Presenters



There were five free papers on Geriatrics from different regions of the country & the session was chaired by Dr. Anil K. Manchanda & the judges for this session were Prof. R. S. Gupta, Prof. H. K. Raogupta & Prof. Amitesh Aggarwal.





The Master of Ceremony on Day 1 - Dr. J. K. Sharma & on Day 2 - Dr. Puneet Khanna.



The first session was on Pre-Operative Assessment in which Dr. Pratibha Pereira described in details the assessment of elderly before surgery & the session was chaired by Dr. Anand P. Ambali & Dr. Garima Handa.



Newer modalities in heart failure – ARNI was described by Dr. K. K. Saxena while Dr. Sunil Modi discussed the special aspects of management of heart failure in elderly diabetics. Dr. Rakesh Gupta & H. K. Raogupta chaired this session.



Under Novel Therapies in Diabetes, Dr. S. K. Wangnoo emphasized that the Time to bell the Cat is now & Dr. M. A. Siddiqui described the advantages of combining SGLT2 with DPP4. The session was chaired Dr. Rajesh Marya.



Maj. Gen. L. R. Sharma & Dr. O. P. Sharma chaired the guest lecture by Dr. Renu Wadhwa from Japan who described CARF A New Regulator of Stress, Aging and Cancer: Evidence from in vitro Stress Models. The visiting dignitary was honoured with Gold Plated Medallion.



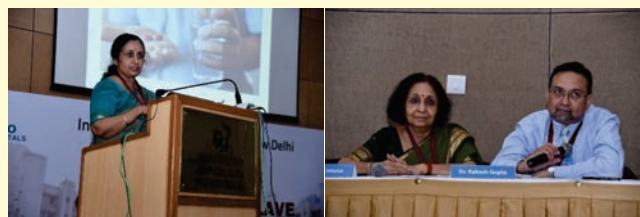
Dr. P. N. Renjen spoke on Dementia - Parkinsonism Overlap/Combination and the session was chaired by Dr. Sandeep P. Tamane & Dr. Amit Gupta



Dr. Rajesh Taneja described the management of Urinary Incontinence in Elderly; a lecture chaired by Dr. S. K. Agarwal & Dr. Anand P. Ambali.



Dr. P. S. Shankar delivered a guest lecture on frailty. This was chaired by Dr. M. S. Gudi & Dr. R. S. Gupta.



Post lunch Dr. Prabha Adhikari described in details the Safer Antibiotics in elderly & how to avoid drug interactions. The lecture was chaired by Dr. Rakesh Gupta & Dr. Anita Jatana.



Dr. K. Hari from Kerala emphasized the need for Vitamin D as a Vital Hormone. The talk was chaired by Dr. D. K. Hazra & Dr. Anil K. Manchanda.



Dr. Raju Vaishya spoke on management of Osteoarthritis in elderly. Dr. A. S. Arora & Dr. J. M. Dua chaired this talk.



Dr. Puneet Khanna spoke on COPD - Current Management & also touched upon COPD/Asthma overlap. This session was chaired by Dr. K. Anupama Murthy & Dr. Rakesh Kumar.



Dr. Atul Luthra spoke on Newer Insights in Sulfonylurea; still relevant in India. The session was chaired by Dr. Vivek Handa & Dr. Sajesh Asokan.



Dr. Randhir Sud emphasized the importance of Nutrition in Health & Sickness. His talk was chaired by Dr. Rakesh Kumar & Dr. Mohit Sharma.



Delegates interacted with speakers even during lunch & evening tea breaks.



During faculty dinner Dr. O. P. Sharma felicitated Dr. Sunil Kaul, Dr. Renu Wadhwa, Dr. S. V. Kulkarni & Dr. Nagesh G. Kavi.



In the Symposium on Care Dr. K. B. Linge Gowda spoke on Palliative Care, Dr. G. P. Dureja described Pain Management, Ms. Rohini Sharma spoke on Nursing Care & Dr. Seema Grover emphasized the importance of Physiotherapy. This session was chaired by Dr. Satish Gulati, Dr. Geetanjali Kochar & Dr. Nikhil Sarangdhar.



On second day Dr. S. V. Kulkarni enlightened members about advances in technology which is Seniors Citizen Friendly. The talk was chaired by Dr. Kauser Usman & Dr. Mohit Saran.



Dr. Amitesh Agarwal & Dr. Surjadeep Sengupta chaired the highly informative talk on Falls by Dr. Nagesh G. Kavi.



Dr. Sunil Kaul delivered a guest lecture on Ashwagandha for Interventions of Aging and Age-related Pathologies: Experimental Evidence. This was their original research work. The session was chaired by Dr. G. D. Ramchandani, Dr. Naveen Kulkarni & Dr. M. S. Chaudhary.



Dr. Anil K. Manchanda updated members about the Adult Vaccination. His talk was chaired by Dr. V. K. Aneja & Dr. Padmamalika Khanna.



At 10:35 AM Ms. Sangita Reddy, Joint Managing Director of Apollo Hospitals Group joined through video conference. Dr. O. P. Sharma, Organizing Secretary welcomed Ms. Sangita Reddy, introduced her to guest of honour Ms. Sharon Lowen & then requested her to deliver Keynote Address on Geriatric Care in Indian – Opportunities & Challenges. Ms. Reddy while touching upon the rising number of elderlies, emphasized upon the medical needs as well as preventive health aspects in elderly. She gave a bird's eye view of healthcare delivery system in the country & reminded everyone of their commitment towards elderly.

Ms. Reddy released "A Handbook of Geriatric Care" edited by Dr. O. P. Sharma & also formally launched the online course on geriatric medicine directed by Dr. O. P. Sharma. Mr. Ashok Bajpai, Managing Director Indraprastha Apollo Hospitals, New Delhi received the memento & gold-plated medallion on behalf of Ms. Sangita Reddy. Mr. Bajpai assured all help in the development of geriatrics at Indraprastha Apollo Hospitals. Dr. Anupam Sibal, GDMS gave a brief about elderly healthcare programs of Apollo Hospitals Group. Dr. Sibal released the special issue of Indian Journal of Geriatric Care which was brought out to commemorate this occasion. Dr. O. P. Sharma introduced associate editor Dr. Puneet Khanna, Asst. Editor Dr. Mohit Sharma & Desk Editor Dr. B. B. Gupta to Ms. Reddy.

Inauguration Function



Inauguration started with ceremonial lamp lighting, Ganpati Vandana by students of School of Nursing of Indraprastha Apollo Hospitals & floral welcome of guests.



Dr. Vivek Handa, President GSI & Dr. O. P. Sharma, Gen. Secretary GSI presented tokens of Appreciation to Dr. Anupam Sibal, Mr. Ashok Bajpai & Dr. V. K. Arora, Chancellor Santosh University.



A special gesture of love & respect in the form of a pencil portrait was presented to Dr. O. P. Sharma by Dr. G. D. Ramchandani, which was made by one of his type 1 Diabetes patients – a school going girl.

Some of the contributors of “A Handbook of Geriatric Care” were felicitated on this occasion.



Some of the contributors of “A Handbook of Geriatric Care” were felicitated on this occasion.



Dr. Kaushik Ranjan Das, Dr. Anand P. Ambali & Dr. Sandeep Tamane received appreciation awards for their excellent work for promotion of Geriatrics.



Dr. Agam Vora spoke on Tuberculosis - Reactivation/ Reinfection in elderly & his lecture was chaired by Dr. V. K. Arora & Dr. Ruchi Manchanda.

Dr. Anand P. Ambali described ABC of Geriatrics & his talk was chaired by Dr. Anil K. Manchanda & Dr. Vipul Gupta.



***In 24th Convocation of Geriatric Society of India®
Dr. Vivek Handa awarded Fellowships of
Geriatrics Society of India® to 17 members. Chief
Guest Dr. V. K. Arora, Chancellor of Santosh
University delivered convocation address.***



Post lunch Panel discussion - Corporate Initiatives in Geriatric Care was moderated by Dr. O. P. Sharma. The panelists were Dr. Ratna Rao, Dr. Syamasis Bandyopadhyay & Dr. Suddhasatwya Chatterjee.



Dr. Harsh Bhargava gave the Orthopaedician's View on Osteoporosis & his talk was chaired by Dr. Saurabh Srivastava & Dr. Sajesh Asokan.



Dr. J. K. Sharma spoke on Safer Insulins in Elderly & touched upon hypoglycaemia & weight gain in particular. His talk was chaired by Dr. Suresh Sharma & Dr. Girish Khurana.



Dr. S. K. Wangnool shared his Experience with Weekly GLP1 RA. His talk was chaired by Dr. Dheeraj Kapoor & Dr. Agam Vora.



Dr. Gaurav Sagar emphasized upon the detection & management of Renal Impairment in Hyperglycaemia. This talk was chaired by Dr. V. K. Aneja & Dr. S. V. Kulkarni.



Dr. Vinit Suri showed four cases of Stroke in which timely intervention made remarkable recovery. His talk was chaired by Dr. Mohit Sharma & Dr. Mohit Saran.



The last lecture of conclave was by Dr. H. N. Bajaj, he spoke on Spinal Problems in the Geriatric Population. This talk was chaired by Dr. Harsh Rastogi & Dr. Manoj Kumar.



The valedictory session was full of clapping. Dr. O. P. Sharma invited his main supporters who had vital role in the success of this conclave. These three persons Dr. J. K. Sharma, Dr. Anil K. Manchanda & Dr. Puneet Khanna were given big applause.



The Free Paper winners were invited to dais & presented prizes.



Org. Secretary Dr. O. P. Sharma was given standing ovation.



Ms. Maryline Flinsi, Principal of School of Nursing was presented a token of appreciation with a big applause.



We Look Forward for your continued support in Geriatric Care

News from Kolhapur

PUBLIC AWARENESS PROGRAM

Geriatric Society of India Kolhapur Chapter in association with Kolhapur Medical Association Branch, Indian Medical Association organized Public Awareness Program about “Elderly Urinary Problems” on 26th April 2019.

Dr. Vinay Chougule, Urologist delivered interactive lecture with audio-visual to about 80 elderly persons. Dr. Vishwanath Magdum, Chairman GSI Kolhapur Chapter, Dr. Mahaveer Mithari, Secretary, Dr. Sanjay Ghotane, Treasurer & some members of GSI. Dr. Sandeep Salokhe, President KMA Bench IMA & Dr. Asha Jadhav Secretary KMA attended programme.



News from Dibrugarh

CME IN GERIATRICS

Eastern Zonal Branch of Geriatric Society of India & Assam Medical College organized a CME program on 08th June 2019 at Assam Medical College, Dibrugarh.



Prof Dr. Arunansu Talukdar spoke on “Comprehensive Geriatric Assessment”. The session was chaired by Dr. Ashoke Kumar Das & Prof. Dr. Anjana Devec. Dr. O. P. Sharma spoke on “Geriatric Care - Indian Options”. The session was chaired by Dr. Col. Pramod Kumar & Prof. Dr. Sanjeeb Kakati. Dr. Soumik Ghosh delivered a lecture on “Poly Pharmacy in Geriatric Patients” which was chaired by Prof. Dr. Ajit Kumar Pegu & Dr. Aniruddha De. Dr. Kaushik Ranjan Das delivered a lecture on “Abuses in Indian Elderly”. The session was chaired by Prof. Dr. Dipen Kumar Bhattacharya & Prof. Dr. R. K. Kotokey.

Dr. O. P. Sharma, the Chief Guest of function praised the



Geriatric Service being rendered by Assam Medical College & gifted copies of his text book “Principles & Practices of Geriatric Medicine” & “A Handbook of Geriatric Care” for the library of Dept. of Medicine.

Dr. Kaushik Ranjan Das, Dr. Sanjeeb Kakati, Pranjal Kumar Dutta, Dr. Arunansu Talukdar, Dr. Anirudha De & Mrs. Shanti Sharma were felicitated on this occasion.

Chairman Dr. Arunansu Talukdar, Gen. Sec. Dr. Kaushik Ranjan Das.

News from Vijayapura

POSTER PAPER IN INTERNATIONAL CONFERENCE

Dr. Anand P. Ambali, In Charge Geriatric Clinic of Shri B. M. Patil Medical College Hospital & Research Centre, Vijayapura (BLDE – deemed to be university) had a poster paper presentation on “A Study of Self-harm among Fifty Older People” at The International Association of Gerontology and Geriatrics Conference in Gothenburg, Sweden on 25th May 2019.

The presentation was well accepted and had wide discussion on various issues concerned to self-harm in Indian context. The older people in India are attempting life is difficult



to accept in view of strong family relations. This study has brought important hidden issue to the light. This is the third international presentation from the geriatric Clinic.

ELDER ABUSE AWARENESS DAY 2019



The Geriatric Clinic Organised Awareness Talk at Dr. B. C. Roy Seminar Hall of Department of Medicine on Elder Abuse on 15th June 2019 for post graduate students.

Dr. Badiger Sharanabasawappa, HoD Medicine gave preamble. Dr. Anand P. Ambali, Geriatric Physician elaborated in detail about Elder Abuse, its effects on health, identification, counselling and law safeguarding the older people against abuse.

The program attended by 30 students received technical support from National Programme Health Care of Elderly, Geriatric Society of India and Silver Innings.



News from Gokak

GERIATRIC MEDICINE AWARENESS PROGRAMME

Geriatric Medicine awareness programme for senior citizens was organized at Gokak on 07th April 2019. Dr. Anand P. Ambali from Vijayapura, Dr. Vinay Verma from Hubballi & Dr. Akshay Phatak From Karawar addressed the august gathering of Senior Citizens of Gokak regarding different aspects of geriatric care.



New from Kolkata

GERIATRIC NEUROCARE SUMMIT



Geriatric Neurocare Summit was organized on 21st & 22nd June 2019 at Peerless Hospital, Kolkata. This was organized by Institute of Neuroscience Kolkata, National Neurosciences

Centre & Peerless Hospital Kolkata in association with Geriatric Society of India West Bengal branch.

Eminent speakers spoke on various topics in neurology concerning elderly people. Conference was attended by more



than 100 delegates.

Dr. Soumik Ghosh from GSI was the organizing Chairman.

News from Pune

CME ON SEXUAL DYSFUNCTION

Geriatric Society of India, Pune Chapter & OM Clinic organized a lecture on Sexual Dysfunction – past, present & future by Dr. Dhanajay Sathe on 19th April 2019 at Hotel Deccan Rendezvous.

CME ON CURRENT ISSUES IN GERIATRICS

A CME on Current Issues in Geriatrics at Bharat Vidyapeeth (deemed to be university) was organized on 27th April 2019.

Dr. V. P. Singh spoke on ageing gracefully, Dr. Deoskar spoke on vaccination, Dr. Jyoti Shetty spoke on dementia, Dr. Manjari Datar spoke on late onset depression, Dr. Sandeep Tamane spoke on poly-pharmacy, Dr. Vijaya Date spoke on organ, skin & body donation, Dr. Sandeep Bharaswadkar spoke on TB notification, Dr. Aparna Birajdar spoke on public private partnership in RNTCP, Dr. Dhanajay Sathe spoke on sexuality, Dr. Ramesh Murthy spoke on eye problems & Dr. Medha Dargaje spoke on PFT in COPD.

This well attended CME was organised by Dr. Sandeep Tamane.

News from Belagavi

CONGRATULATIONS



Dr. M. V. Jali for well-deserved
Lifetime Achievement Award at KAPICON.

CONGRATULATIONS

Dr. Sandeep Tamane for starting an
E-Newsletter from GSI Pune Chapter.

CONGRATULATIONS

For starting Eastern Zonal Branch of
Geriatric Society of India
Chairman Dr. Arunansu Talukdar,
Gen. Sec. Dr. Kaushik Ranjan Das.



Geriatric Society Of India's
16th International Conference of
Geriatric Care and Gerontology

GSICON
2019

Organized by Academy of Advanced Medical Education

Date: 14 - 15 September 2019

Venue: One up Banquet Hall Above Croma,
Malad Link Road, Malad West, Mumbai 400064

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