was bony hard ,non tendorand hyperpigmented .skin temperature was normal in knee joint about 20 degree flexion deformity present. No other abnormalities wasdetected in the right lower limb and upper limb

pain radiograph of left leg shows extensive,dense ,undaulting or irregular cortical hyperostosis,resembling candle wax,extending along the length of bone ,resulting in deformitiy of the bone ane narrowing of the medullary cavities.plain radiographs of the bones on the right lower sidewards normal. Laboratory findings for CBC ,Serum ,calcium, phosphorous,alkaline phospertase,erythrocyte sedimentation rate ,C-reactive protein,fetoproteins,carcinoembriyonic antigen where within normal limits.

The pathologic report describes non specific, dense cortical bone .The hyperostotic bone consisted of mature and immature bone elements.treatment pamidronat 30mg daily for 6 days aswell as analgesic where given to the patient. Physiotherapy started for the deformity.After 3 months in follow up ,the patiewnt reported alleviation of the pain

CONCLUSION:

All routine laboratory findings usually normal.It is only diagnoised by characteristic candle wax type appearance in X-ray film .Their is no definite treatement available for this disease.only symptomatic treatment can improve the condition of the patient more fruitful result obtain with pamidronat and physiotherapy.

REFERENCE:

Murray RO,Mc Credie J. Melorheostosis and the sclerotomes;a radiological correlation. Skeletal radiol.1979;4:57-71(pubmed)
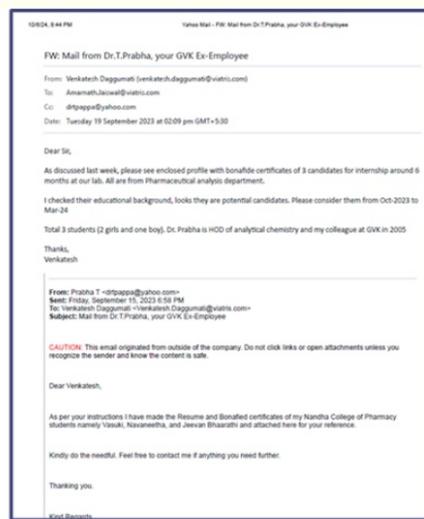
- Mr.V.C. Ariprasad, B.Pharm

Our Activities
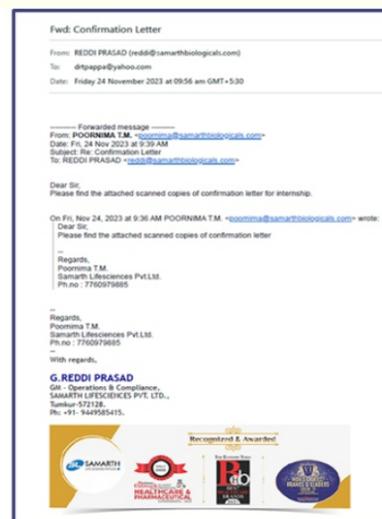
Internship Placement Achievement

We are delighted to share that the students of Nandha College of Pharmacy, Erode, have successfully secured internships with reputed pharmaceutical organizations, further enhancing their professional learning and industry exposure. Our students have been placed in: Glenmark Pharmaceuticals Limited, Mumbai (Maharashtra), Mylan/Viatris Laboratories, Hyderabad (Telangana), and Samarth Life Sciences Pvt. Ltd., Tumkur (Karnataka). These prestigious opportunities at leading pharmaceutical industries will provide our students with hands-on training, technical expertise, and professional grooming, enabling them to effectively bridge the gap between academic knowledge and industrial practice. The institution sincerely thanks its industry partners for their continued support and extends hearty congratulations to the students for this commendable achievement.

Glenmark Pharm. Ltd., Mumbai

Mylan/Viatris Lab. Ltd, Hyderabad

Samarth life sciences Pvt. Ltd, Bangalore

NANDHA PHARMA ALERT

An Exclusive Newsletter from Drug Information Center,
NANDHA COLLEGE OF PHARMACY,
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Issue -1 (January- April 2025)

IN THE HIGHLIGHTS:

- Artificial intelligence in Medical Field
- Meloheostasis
- Department Activity

ARTIFICIAL INTELLIGENCE IN MEDICAL FIELD

Introduction:

Artificial Intelligence (AI) in variying forms and degrees has been used to develop and advance a wide spectrum of fields,such as banking and financial market .education,supply chains ,manufacturing ,retail and e-commerce and healthcare.with the technology industry AI has been an important enablers for many new business innovations.These includes web search (e.g.Google),content recommendation (e.g.Netflix),product reccommentation(e.g.Amazon),targeted advertising(e.g.Facebook),and autonomous vechicles(e.g Testa)

What is AI?

AI is a wide –ranging branch of computer science concerned with building smart machine capable performing tasks that typically require human intelligence. Some applications of AI include automated infaces for visual perception , speech recognition desion making,and translation between the languages. AI is an indiscipciplinary science Huge strides have been made in application of AI system to drug discovery and providing personalizd treatment option. Companies such as verge genomics ,focused on the application of machine learning algorithms to analize human genomic data and identify drug to combat neurological disease such as Parkinsons disease ,Alzheimer and amotropic lateral Sclerosis (ALS) in a cost –effective way .Assisting doctors search hospital protocols,list of available clinical tools and available drugs through the use of mobile application,thus improving work flow in the hospital .Additionally ,applications of artificially intelligent system in health care is broadly classified into three categories:

- Patient –Oriented AI
- Clinician –OrientedAI and
- Administrative and Operational –Oriented AI

Present Day Use Of AI:

The most recent application of AI in global health care is the prediction of emerging hotspot using contract tracing and flight traveler datato fight off the novel coronavirus(COVID-19) pandemic

Contact tracing is adisease control measure used by government authorities to limit spread of the disease.contact tracing work by contacting and informing individuals that hae been exposed to the pearson who has contracted the disease and instructing the to quarantine to prevent further spread of the disease .As reported by the Apple newsroom ,tech giant like google and apple have been joinedforces to create a contract tracing platforms that will use artificial intelligence system through the use of applications programming interfaces commonly referred to as APIs on smartphones The platform will enable the user who choose to enroll to report their lab result location services will then allow the platform to contact people who may have been in the victiny of the infected pearson .

APPLICATIONS:

Availability of data

Creating blast models

Data preprocessing

Presenting blast models

Fragmented data

CONCLUSION:The future of AI in medicinal science .AI system can help free up the time for busy doctors by transcribing notes ,entering and organizing patient data into portals (such as EPIC) and diagnosing patient potentially serving as a mean for providing second option for the physician.Artificially Intelligence System can also help patient with follow up care and availability of prescription drug alternatives.AI also has the capability of remotely diagnosing patients thus extending medical service to the remote areasbeyond the major urban centres of the world THE Future of AI in health care is bright and promoting and yet much remains to be done

Most global pharmaceutical companies have invested their time and money on using AI for drug development of major disease such as cancer or cardiovascular disease.

REFERENCE:

https://www.ncbi.nlm.nih.gov

- Ms.S.Abinayasri,
B.Pharm

PRALSETINIB

Pralsetinib is a RET receptor tyrosine kinase inhibitor for the treatment of metastatic RET-driven non-small cell lung cancer.

MECHANISM OF ACTION:

Rearranged during transfection(RET) is a transmembrane receptor tyrosine kinase containing extracellular ,transmembrane and intercellulardomain whose activity is required for normal kidney and nervous system development.Constitutive RET activation is achieved through chromosomal rearrangement producing 5 fusion of dimerizable domain to the 3 RET tyrosine Kinase domain leading to constitutive dimerization and subsequent autophosphorylation ;the most common fusions are KIF5B-RET and CCDC6-RET ,although more than 35 genes have been reported to fuse with RET.Constitutive activation leads to increase downstream signaling and is associated with tumor invasion,migration and proliferation.

PHARMACOKINETICS:

Absorption:Pralsetinib givenat 400 mg once daily result in the mean steady state Cmax of 2830ng/ml(coefficientof variation ,CV, 52.5%) and AUCO-24h . The Cmax and AUC of pralsetinib increased inconsistently with increasing dose between 60 and 600 mg once daily ,with a median Tmax across this range between two and four hours.

Volume of distribution:Pralsetnib has an mean apparent volume of distribution of 228L.

Protein binding:Pralsetnib is 97.1%bound to plasma proteins regardless of concentrations.

Metabolism:Pralsetnibis metabolized in vitro primarily by CYP3A4 and to the lesser extent by CYP2D6 and CYP1A2.Pralsetnib given as a single oral dose of 310mg in healty volunteerslead to the detection of metabolites both oxidation and Glucurnidation although these constituted less than 5%of the detected material.

Route of elimination: PRALSETINIB is primarily eliminated through the feacel route with a small amount found in the Urine

Half life :Pralsetnib has a plasma eliminated half life of 14.7 +6.5 hours following a single dose and 22.2+13.5 hours following doses.

Clearance:Pralsetnib has a mean apparent steady state oral clearance of 9.1L/h

Adverse effects:

Common
- Cardiovascular:Edema
- Gastrointestional:Constipation,Diarrhea
- Hepatic:ALT/SGPT LEVEL RAISED ASPARTASE Amino transferase serum level raised
- Musculoskeleton:Musculoskeleton pain
- Respiratory: Cough ,Pneumonia
- Other:Fatigue

Serious
- Cardiovascular:Hypertension
- Dermatologic:Impaired wound healing
- Hematologic:Hemorrhage,grade 3 or greater
- Hepatic:Hepotoxicity
- Immunologic:Sepsis
- Respiratory: pneumonitis

- Mr.Kaviarasan
B.Pharm

MELORHEOSTASIS

Melorheostasis also called as an candle bone disease,melting wax Syndrome,Leri disease is a rare chronic bone disorder first described in 1922 by Leri and Joanny .It cause the abnormal growth of new bone tissue on the surface of the existing bone .The new bone has a charesteristic appearance on X-ray often describing as an "flowing"or like dripping wax .Men and women are equally affected and no hereditary features have been discovered .The disorder begin in childhood.

CASE REPORT:

A 35-year old women presented with the history of left leg dull and aching pain with mild swelling and irritation of the left knee movement.Her limb pain presented since last 20 years .The swelling and restriction of joint movement gradually progressed .Their is no relevant family history or trauma . on Physical Examination the patient had hard swelling in the left leg The swelling