

The Newsletter
based on the theme of WORLD HEALTH DAY-DEPRESSION "LETS TALK"

Medi-Update

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PARUL SEVASHRAM HOSPITAL

PARUL INSTITUTE OF MEDICAL SCIENCES & RESEARCH

"Once you choose hope, anything is possible."
— Christopher Reeve

DEPRESSION – INDIAN SCENARIO

Adapted and summarized from the document – “Depression in India – Let’s Talk” by the World Health Organization . Full document available at http://www.searo.who.int/india/depression_in_india.pdf

DEPRESSION AS A GLOBAL PROBLEM WITH FAR REACHING CONSEQUENCES

Approximately 322 million people are affected by depression globally with a prevalence of 4.4%. This has increased from 2005 by approximately 18%. Depression has far reaching effects on both the individual and his family leading to a poor quality of life as well as having an adverse social and economic impact. In its worst form it may lead to suicide and is associated strongly with both communicable and non-communicable diseases. Depression accounts for 7.5% of global years lived with disability and 2% of global disability adjusted life years (DALYs) ranking as the largest contributor to non fatal health loss.

DEPRESSION IN INDIA

- Fifty seven million people in India (18% of global estimates) are affected by depression. As per NMHS (2015-16) in India, one in 20 (5.25%) have suffered (at least once in their lifetime) from depression
- The National Mental Health Survey (NMHS) 2015-16 was conducted by the National Institute of Mental Health and Neurosciences (NIMHANS) to assess extent of depression in India.
- In India ,depression,accounted for 11.5 million DALYs in 2013 representing an increase by 67% between 1990 and 2013. This is expected to rise by 2.6 million DALYs in 2025 due to ageing and population growth.
- Population based studies estimate even higher prevalence rates ranging from 1.8% to 39.6%. Due to inter-study variations ,differences of populations , lack of adequate sample size,study assessment ,study tools and lack of uniformity it is difficult to make an accurate estimate based on these studies.

INTEGRATING PRIMARY HEALTH CENTERS:

- 17–46% of patients attending primary health centers suffer from common mental disorders of which 63.6% are depression.
- With primary importance given to leading condition in primary health centers it is possible that depressive symptoms are overlooked.
- Including primary care physicians in screening of patients for symptoms of depression may help to integrate mental health care into primary health care.
- Furthermore, the stigma for patients with mental health disorders may be less with primary care physician than psychiatrists in addition to being cost effective and allowing for superior health care.

PREVALENCE RATES AMONG DIFFERENT POPULATIONS

- Prevalence of post partum depression ranges between 15.3% and 23.0%. Depression during pregnancy

“It is during our darkest moments that we must focus to see the light.”

–Aristotle

DEPRESSION – INDIAN SCENARIO

and after childbirth may adversely affect the development of the offspring.

- Childhood depression has prevalence rates between 0.3% and 1.2%..
- Prevalence of depression among the elderly ranges from 3.9% to 47.0%. This may be due to predisposing factors like social isolation, stressful events, absence of support systems, lack of income and comorbid conditions.

SOCIAL AND ECONOMIC EFFECTS

- Depression has been reported to affect patients ability to perform daily routines for about 20 days a month including affecting work (67%), social life (69%) and family life (70%).
- Additionally, seventy-seven per cent of relatives, experienced some social or economic hardships including loss of work (8-10 days in 3 months) as a result of the patients depression.
- The family spends an addition Rs. 1500 per month for care of affected persons. The economic burden due to depression is attributed significantly to high treatment gap, lost productivity and comorbid conditions.

STIGMA

- Stigma associated with depression has devastating consequences for the individuals and their families. It may lead to individuals not pursuing care for depressive symptoms.
- There is a need for anti stigma interventions focused on educating the general public and creating responsible media.

EARLY DIAGNOSIS AND TREATMENT

- Patients may wait till 10 years before seeking treatment with many initially seeking household and spiritual remedies.
- Delayed diagnosis and treatment may lead to poor outcomes.
- Appropriate screening of ICD-10 diagnostic criteria may lead to earlier recognition. Additionally, several training modules (NIMHANS modules, IRIS Model Framework Manual for accredited social health activists [ASHAs], etc.) are available in India for training ASHAs, health workers, Anganwadi workers, school teachers, and councilors
- Increasing awareness of family members, gatekeepers (individuals in a community who have face-to-face contact with large numbers of community members as part of their usual routine) and traditional spiritual healers can help in early recognition and timely remedial measures.

TREATMENT GAP

- Individuals with depression may be unaware of their condition or of the fact that it is treatable.

“Nothing is impossible, the word itself says I'm possible!”

–Audrey Hepburn

DEPRESSION – INDIAN SCENARIO

- There are inadequate resources to create an efficient system to handle the high burden of depression.
- **This results in a large treatment gap estimated to be 87.2 to 95.7%.**
- A significant lack of resources further contributes to this treatment gap. **India faces a shortage of psychiatrists (.07 per 100000 population) and psychiatric nurses (.12 per 100000 population).**
- Additionally there is a lack of appropriate systems, counseling centers and training to refer and follow up patients with depression as well as lack of uninterrupted supply of essential drugs for treatment
- Appropriate referral pathways from primary care physician to specialist psychiatrist and back to the primary care physician need to be developed for severe and complicated cases of depression.

CURRENT PROGRAMS AND POLICIES

- India has its own National Mental Health Programme (NMHP) along with an implementation arm - District Mental Health Programme (DMHP) for the support of mental care activities.
- The National Mental Health Policy 2014 emphasizes the various factors that can lead to depression including poverty and the role sectors like education and the workplace can play in mental health promotion.
- The Rights of Persons with Disabilities Act, 2016 allows for depression to be considered a disabling condition.

The Mental Health Action Plan 365 provides a framework of actions for realizing the objectives of mental health policy

THE WAY FORWARD

A number of psychosocial, economic, cultural factors combined with changing lifestyles and a deterioration in support systems in the background of ever increasing globalization, urbanization and migration has led to an increase in the prevalence rates of depression in India. Overall increased importance must be given to mental health and methods to deliver it in a way that is acceptable, culture specific and at reasonable costs to patients and their families. For this purpose help from communities must be sought so that community health workers can be trained to deliver care to patients. Additionally, methods of training, quality assurance and referral pathways must be developed. Digital technologies and the media can be used to promote self-care and self identification of depression. Non pharmacological options must be increasingly explored including psychological treatment and spiritual approaches like yoga. While small scale efforts have started being delivered in India there is a need to integrate these with government health care systems. India needs to develop sustainable, broad-based and integrated programmes for better recognition and care of people with depression in the coming years.

“Once you replace negative thoughts with positive ones, you will start having positive results.”

– Willie Nelson

What's New at PIMSR

● COMMENCEMENT OF OUR NEW INTEGRATED COUNSELING & TESTING CENTER AT PSH

The Government approved Integrated Counseling and Testing Center for persons with HIV was inaugurated on



Wednesday April 25 2017 at Parul Sevashram Hospital.

● COMPLETION OF HEALTHY HEALTHFORCE PROJECT

This novel initiative undertaken by PIMSR and PSH in collaboration with district health office , Vadodara was recently completed. The project aimed to secure the health of health service providers , ASHAs, Female Health workers ,anganwadi workers and other health functionaries . Final report was compiled and submitted to District Development Officer Dr.Saurabh Pardhi and Chief District Health Officer Dr.M.T.Chhari .

● DOTS CENTER AT PARUL SEVASHRAM HOSPITAL

DOTS Center has been established at Parul Sevashram Hospital next to medicine OPD under the RNTCP Program by Govt. of India. Under the DOTS centre, all patients suffering from tuberculosis are provided with free anti-TB drugs by the Doctors and staff of DOTS Center .



● LAPROSCOPIC TUBAL LIGATION CENTER AT PARUL SEVASHRAM HOSPITAL

Under RCH Program laparoscopic TL Center has been allotted by the District Health Office , Vadodara at PSH which conducts more than 200 free Laparoscopic surgeries every month .



● CERTIFICATE COURSE IN BASIC EMERGENCY CARE

First batch of Paramedical Interns completed certificate course of one month duration in Basic Emergency Care held at Parul Sevashram Hospital in July 2017 .

● CMEs/ Academic Meets

CMEs, Academic meet/ Seminars help us become a better listener, present our arguments and ideas

"A person who never made a mistake never tried anything new."

—Albert Einstein

What's New at PIMSR

clearly and be open to others' points of view. Seminars at PIMSR are a comfortable, open environment for practicing professional communication techniques. CMEs are organized every month & Academic meets are organized every week on Friday and are attended by all the extremes of medical field with zeal and enthusiasm.

- **CME: "PAIN MANAGEMENT"**

Continuing Medical Education (CME) programme on "Pain Management" was organized by the Parul Institute of Medical Sciences and Research, Parul University on March 2 2017. Nine lectures covering a broad range of topics were delivered by faculty from Departments of Physiology, Pharmacology, Medicine, Orthopedics, Surgery, Physiotherapy and Anesthesia.

- **GOOD CLINICAL PRACTICE TRAINING**

Good Clinical Practice (GCP) Training was organized by the Clinical Research Department, Parul University on 5th May 2017. Training was conducted in order to sensitize faculty including clinicians, nurses and pharmacists to the need of Good Clinical Practice in conducting research. Dr. Nilesh Patel, Head, Nashik Biotech Clamp Unit, Wockardt Ltd. was the guest speaker delivering a talk on "Schedule Y" while Dr. S.K. Date, Director of Clinical Research, Parul University and Professor, Pharmacology, PIMSR delivered a talk on "Good Clinical Practice".



- **CME: "BATTLE OF BUGS – COMBATING ANTIBIOTIC RESISTANCE"**

Continuing Medical Education (CME) programme on "Battle Of Bugs – Combating Antibiotic Resistance" was organized by the Department of Microbiology, Parul Institute of Medical Science and Research, Parul University on May 14 2017. Dr. Surabhi Madan, Infectious Diseases Consultant, CIMS Hospital, Ahmedabad and Dr. Hiten Karelia, Infectious Diseases Specialist, Vadodara were the chief guests who delivered the lectures on "Drug Resistant Infections" and "Antibiotic Failure" respectively.



"We learn from failure, not from success."

– Bram Stoker

What's New at PIMSR

Summary of CMEs & academic meets recently conducted are as below

Sr. No.	Particulars	Date	Name & Designation of Speaker	Topic
1	ACADEMIC MEET	01.02.2017	Dr. Ujval Parikh, Assistant Professor, Dept. of Obstetrics and Gynecology	Fibroids
2		07.02.2017	Dr. Prashant Ram, Senior Resident, Dept. of Paediatrics	Megaloblastic Anemia
3		15.02.2017	Dr. Ashok Vaishnavi, Professor & Head of Orthopedics	HTO in osteoarthritic knee and other modalities in oesteoarthritis of knee
4		21.02.2017	Dr. Saudhan Desai, Senior Resident, Dept. of Ophthalmology	Glaucoma: Silent threat to vision
5		01.03.2017	Dr. Krunal Tralsawala, Assistant Professor, Dept. of Skin and VD	Stevens Johnson Syndrome
6	CME	02.03.2017	Faculty of Departments of Physiology, Pharmacology, Medicine, Orthopedics, Surgery, Physiotherapy and Anesthesia	Pain Management
7	ACADEMIC MEET	10.03.2017	Dr. Bhumika Gharia, Assistant Professor, Dept. of Pathology	Bone marrow
8		24.03.2017	Dr. Anant Marathe, Professor, Dept. of Microbiology	Blood culture in blood stream infection: uses method
9		07.04.2017	Dr. Avnish Dave, Professor, Dept. of Physiology	Psycho-physiology of mental health
10		28.04.2017	Dr. Mitesh Dave, Professor, Dept. of Anatomy	Significant of anatomical variations
11	GCP TRAINING	05.05.2017	Dr. Nilesh Patel, Head, Nashik Biotech Clamp Unit, Wockardt Ltd.	Good Clinical Practice
12			Dr. S. K. Date, Director, Clinical Research, Parul University	
13	CME	14.05.2017	Dr. Surabhi Madan, Infectious Diseases Consultant, CIMS Hospital, Ahmedabad	Antibiotic Resistance
14			Dr. Hiten Karelia, Infectious Diseases Specialist, Vadodara	

"Happiness does not depend upon who you are or what you have. It depends solely upon what you think."

– Dale Carnegie

Interesting Medical Case Reports of Patients Treated at PSH

1. VIRGINAL BREAST HYPERTROPHY AND SYMPTOMATIC TREATMENT: A CASE REPORT

In this case report, we present a rare condition of spontaneous cessation of breast growth in virginal breast hypertrophy and the successful outcome achieved by surgical treatment.

CASE PRESENTATION

A 22-year-old female patient was admitted with complaints of rapid growth in both breasts since 2 months. On physical examination, there was increase in size in both breasts. The volumes of the right and left breasts were measured as 1300 cc and 1000 cc, respectively. Her bilateral breast and axilla examinations were otherwise normal. Her past medical and family history was uneventful. The age at menarche was 11 years. She described regular menstrual cycles every 28 days, lasting for 6 days for the last 3 months. The breast ultrasound and magnetic resonance imaging showed thickening of the skin and subcutaneous tissue in both breasts, and glandular hyperplasia. The abdominopelvic ultrasonography was normal. The biochemical investigations (complete blood count, biochemistry, C-reactive protein, hormone panels, thyroid hormones (FT3, FT4), thyroid stimulating hormone (TSH), follicle-stimulating hormone (FSH), luteinizing hormone (LH), estradiol, progesterone, total testosterone, prolactin, dehydroepiandrosterone sulfate (DHEAS) revealed that the patient had anemia (Hb: 13.9 and Htc: 32), and all the other values were within normal range. Breast elevation, warm dressings, and oral nonsteroidal anti-inflammatory (NSAID) therapy were initiated.

But after conservative treatment she did not experience relief and therefore was offered surgical treatment in form of **reduction mammoplasty**. She was operated for the same and experienced complete relief from complaints of neck pain, and intertrigo of inframammary fold. She experienced an increase in confidence and self esteem and began attending all social functions.

DISCUSSION

VBH is a rare benign breast disease, characterized by excessive and rapid growth of one or both breasts. It usually **occurs within one or two years before menarche, in the peripubertal period.** The cases with VBH reported in the literature are between the ages of **10–24 years.**

“The greatest discovery of my generation is that a human being can alter his life by altering his attitudes of mind.”
–William James

Interesting Medical Case Reports of Patients Treated at PSH

The exact etiology is unknown, but several estrogen-related theories have been suggested. The most popular of these theories is end-organ hypersensitivity despite normal estrogen levels. The pathology in virginal breast hypertrophy (VBH) is limited to the breast without any other deformity in the body, with normal growth and sexual development. Due to the rapid growth of the breast mastalgia, back and neck pain, dilatation of breast's superficial veins, skin hyperemia, skin ulceration and skin necrosis may be observed clinically. Sometimes it can lead to serious psychological and cosmetic disorders.

Virginal breast hypertrophy (VBH) is usually treated with surgical procedures. Surgery may be sufficient in some patients by itself, however the role of reduction mammoplasty is controversial especially due to the high rate of recurrence. Subcutaneous mastectomy and implant application is the surgical technique with the lowest rate of recurrence since all the breast tissue is removed. Nevertheless, the cosmetic results of subcutaneous mastectomy is less satisfactory than reduction mammoplasty, leaving no reserve for lactation and creating a lifetime risk of implant complications. Agents used alone or following reduction mammoplasty as part of medical therapy are tamoxifen, bromocriptine, medroxyprogesterone, danazol, dydrogesterone, chorionic gonadotropin hormone and thyroid extracts. There is no proven superiority over another agent within this group. Tamoxifen is the most popular of these agents. It has been reported to stop breast growth preoperatively and to inhibit breast growth postoperatively. Unfortunately, its well-known side effects such as endometrial hyperplasia, increased endometrial cancer risk, hot flashes, increased risk of venous thrombosis, bone density changes, negative effects on cognitive function and depression limit its use.

When reviewing these proposed treatments, of which none is perfect, for VBH, it should be noted that spontaneous remission could rarely occur. In the literature, this probability and symptomatic treatment is not addressed. The recommended medical and surgical treatments are usually required in treatment of virginal breast hypertrophy (VBH). However, considering the adverse effects of these treatments in peripubertal period, the probability of spontaneous cessation or regression of breast growth should not be ignored. In virginal hypertrophy patients with appropriate clinical status, as in this case, symptomatic treatment may be applied as a first step and the reconstruction process may be delayed until the postpubertal period.

Attending Clinician was Dr. Mithun Panchal, Assistant Professor and Plastic Surgeon

Dept. of Surgery, PIMSR

"Self-pity gets you nowhere. One must undertake the most interesting game in the world: making the most of one's best." – Harry Emerson Fosdick

2. HUGE MALIGNANT OVARIAN TUMOR:A CASE REPORT

INTRODUCTION

Ovarian Epithelial Cancers usually presents with unilateral or bilateral adenexal mass and ascites. Distension of abdomen with fluid is the commonest presentation. These advanced cancers are usually associated with Omental, Peritoneal or Nodal metastasis, making it very difficult to achieve optimum debulking at primary surgery. It is very uncommon for them to present as large abdominal mass with minimum peritoneal fluid collection.

CASE PRESENTATION

A 64 yrs. old, post-menopausal since 15 yrs. female presented with complaints of rapid distension of abdomen and pain since last 3 months. Having visited a couple of Gynaecologists outside PSH -she was diagnosed as a case of large abdominal mass with possibility of multiple Uterine Fibroids.

On examination there was abdomino-pelvic mass of approximately 28-30 wk pregnant uterus size with multi-lobular surface and restricted movements.

USG scan was repeated and findings suggested multi-lobular solid mass with presence of cystic areas within.

History of rapid increase in size raised suspicion of Ovarian Malignancy
CA-125 level was found to be greater than 700 units/ml.

CT-Scan confirmed presence of solid-cystic adenexal mass, minimal ascites and few calcified pelvic nodes.

All other pre-op Blood investigations, ECG, and X-Ray-chest were normal.

Primary staging laparotomy for clinically suspected ovarian cancer was performed.

Peritoneal fluid was collected for cytological study, Ovarian mass was removed followed by Pan-Hysterectomy. There were multiple pelvic peritoneal lesions suspicious for secondary seedings from cancer mass and pelvic peritonectomy was performed removing all lesions. Bilateral Pelvic Lymphadenectomy was completed followed by Total Omentectomy. Abdominal cavity was explored to confirm OPTIMUM DEBULKING, drain kept and abdomen closed.

Post-operative recovery period was uneventful. Patient was discharged at day 10.

"Although the world is full of suffering, it is also full of the overcoming of it."

—Helen Keller

Interesting Medical Case Reports of Patients Treated at PSH

Final H.P.E. report confirmed Ovarian Serous carcinoma, with peritoneal fluid cytology, peritoneal deposits and pelvic nodes positive for metastatic disease.

The case was confirmed as a case of ADVANCED OVARIAN CANCER. The patient was referred to onco-physician for necessary Adjuvant Chemotherapy.

DISCUSSION

Ovarian Epithelial cancers are known killers of their victims with overall 5 yr survival rate of almost 40% .Majority of sufferers are diagnosed at an advanced stage of disease with low survival rates, very high Recurrence rate, morbidity and mortality.

Management includes surgical cyto-reduction and chemotherapy with Neo-adjuvants. Best results are witnessed, in terms of high disease-free survival rate ,when optimum cytoreduction is achieved at primary Surgery followed by 6 cycles of Neo-adjuvants.

OPTIMUM DEBULKING is defined as “Residual amount of Tumor Deposits less than 1 cubic centimeter” after surgery. This is a very difficult goal to be achieved during primary staging surgical procedure when Ovarian cancer is at an Advanced stage. However if this can be attained at primary surgery, then there is a 60% chance of 5 year survival rate. To achieve optimum debulking mandates bilateral pelvic lymphadenectomy with Omentectomy and removal of peritoneal surfaces (when involved), over and above performing tumor removal with pan-hysterectomy.

CONCLUSION

Ovarian cancers are deadly killers .Neo-Adjuvants can provide good survival rates only when proper surgical cytoreduction has been performed at time of Primary Surgery. Hence all suspicious complex ovarian masses at primary surgery should always be removed along with Pelvic lymphadenectomy and omentectomy in addition to Pan-hysterectomy to give best results possible.

Attending Clinicians were Dr. Ujval Parikh , Assistant Professor & Dr. S.L. Pagi , Professor and Head, Dept. of Obstetrics & Gynecology ; Dr. Dipayan Nandy. Onco Surgeon, Dept. of Surgery, PIMSR



“Never confuse a single defeat with a final defeat.”

– F. Scott Fitzgerald

3. A CASE OF WILSONS DISEASE WITH MESANGIAL PROLIFERATIVE GLOMERULO NEPHRITIS WITH ACUTE TUBULAR INJURY

A 9 years old male child, born out of non consanguineous marriage from Alirajpur, MP presented with complaints of gradual distension of abdomen for last 4 months, jaundice for 1 month, edema of legs for 1 month, cola colored urine for 20 days and low grade fever for 15 days. He had reduced appetite for 6 months. Past history and family history were not significant. His weight was 26.4kg and height was 120 cm.

His temperature was 100⁰ F, pulse rate 70/min and respiratory rate was 16/min. BP was 100/70 mm Hg. On general examination he had pallor, jaundice and clubbing. He had facial and bilateral pedal edema. On systemic examination CVS and RS were normal except decreased air entry in both lower zones. His abdomen was soft, distended with signs of moderate ascitis. Liver was 2cm and spleen was 4cm palpable below costal margin. CNS examination was normal.

His Hb was 7.2gm/dl, Total count was 6600 with N76/L20/E2/M2, platelets 1.72 lacs, ESR 10, and sickling negative. PT was 19.2, INR 1.33, APTT 41.3, S.Na 128, K 4.6, Cl 107. On LFT SGPT- 27, SGOT - 105, S.bilirubin 0.58, S.protein 6.3, albumin 3.0, globulin 3.3, A/G 0.91, and S.alkline phosphatase 176 Portal Doppler was normal. Ascitic fluid micro normal. DCT and ICT were negative and HIV, HBsAg, HCV were negative..

Urine routine micro was s/o albumin +3, blood +3, pus cells 10-15, RBCs plenty. USG was suggestive of hepatosplenomegaly with moderate to gross ascities, changes of liver parenchymal diseases and renal parenchymal disease, multiple enlarged mesenteric and paraumbilical lymph nodes. Spot urine protein/creatinine ratio was 8.36. S. C3 level was 68.1mg/dl . On slit lamp examination KF ring was present. 24hrs urinary copper was 118.22ug/24hrs increased S.creatinine was 3.3, urea 97, uric acid 4.6 ANA weak positive. ANCA IF and ANCA ELISA were negative. Anti GBM AB not detected. Renal biopsy was done s/o mesengial proliferative glomerulo nephritis with features of acute tubular injury. **Pt was diagnosed as a case of Wilsons disease with mesangial proliferative glomerulo nephritis with acute tubular injury. Pt was put on copper restricted diet. D penicillamine chelation therapy with tab zinc and tab lasilactone started. On follow up, pt was well with no edema. His renal function was normal.**

Discussion

This was a case of Wilson's disease with increased urinary copper excretion leading to renal injury. Patient presented with renal problem and with conservative management and penicillamine chelation therapy patient's renal functions became normal.

Attending Clinicians were Dr. Indira Parmar, Medical Superintendent and Professor & Dr. Asruti Kacha, Assistant Professor, Dept. of Paediatrics, PIMSR

"Many of life's failures are experienced by people who did not realize how close they were to success when they gave up."

– Thomas Edison

MYTHS IN MEDICINE (DEPRESSION)

- 1. MYTH** : A patient's subjective response to antidepressants lags behind more noticeable improvements.

FACT : There is no research to suggest this. Typically patients realize improvements in subjective symptoms like amotivation, hopelessness and dysphoria parallel to but not lagging improvements in observable symptoms like sleep and social interaction.
- 2. MYTH** : A slim adolescent female typically requires a lower antidepressant dose than a burly adult male does.

FACT : While complex factors do determine the response to antidepressants , typically age, gender and body type have not been found to be consistent determinants.
- 3. MYTH** : A patient's response to one SRI predicts his or her response to another.

FACT : Responses to different medications in the same class are highly individual and unpredictable. A patient may have identical responses to several SRIs, or may tolerate them similarly. More commonly, individual patients experience varying types and degrees of side effects and disparate responses to different agents.
- 4. MYTH** : Depression is the result of a “chemical imbalance”.

FACT : To attribute depression to merely a lack of a single neurotransmitter or chemical imbalance would be an oversimplification. The relationship between different neural connections, neuronal firing and depression has yet to be ascertained.
- 5. MYTH** : If you experience symptoms, you have depression.

FACT : The strikingly high rising rates of depression globally begs the question of whether we have become better at identifying and diagnosing when people are clinically depressed, or, if we have started to pathologize normal human experiences. One needs to consider whether or not what the patient is experiencing is leading to dysfunction or impairment before coming to the diagnosis of depression
- 6. MYTH** : Promoting concept of depression as a biological brain disorder removes stigma associated with it

FACT : Promoting the concept of depression as a biological brain disorder actually may lead to more negative attitudes, as it may suggest that the condition is an immutable aspect of the person's biology. Experts have suggested that disclosure where individuals come out and talk about experience of depression may be of more help.

Superior strategies may involve developing policies to prevent discrimination as opposed to focusing on the associated stigma .

“Accept challenges, so that you may feel the exhilaration of victory.”

– George S. Patton

WHATSUP WITH MEDICAL FIELD (DEPRESSION)

1. C REACTIVE PROTEIN LEVELS MAY PREDICT RESPONSE TO ANTIDEPRESSANT TREATMENT

Currently, no valid measures inform treatment selection for depressed patients. Researchers at UT Southwestern Medical Center's studied whether measurement of C reactive protein (CRP) could differentiate between patients responding to either of two treatments with different mechanisms of action. The study demonstrated that measuring a patient's C-



reactive protein (CRP) levels through a simple finger-prick blood test can help doctors prescribe a medication that is more likely to work. Utilizing this test in clinical visits could lead to a significant boost in the success rate of depressed patients who commonly struggle to find effective treatments. Researchers found a strong correlation between CRP levels and which drug regimen improved their symptoms: For patients whose CRP levels were less than 1 milligram per liter, escitalopram alone was more effective: 57 percent remission rate compared to less than 30 percent on the other drug. For patients with higher CRP levels, escitalopram plus bupropion was more likely to work: 51 percent remission rate compared to 33 percent on escitalopram alone. The next step is to conduct larger studies to verify CRP's role with other antidepressants and find alternative markers where CRP does not prove effective.

2. MODULATION OF CA²⁺/cAMP SIGNALLING INTERACTION AS NOVEL PHARMACOLOGICAL TARGET FOR DEPRESSION

Depression is a psychiatric disease resulting mainly by dysfunction of serotonergic and monoaminergic neurotransmission in central nervous system (CNS). L-type Ca²⁺ channel blockers (CCBs), used in anti-hypertensive therapy, produce increase of plasma catecholamine levels and tachycardia, typical symptoms of sympathetic hyperactivity. This paradoxical sympathetic hyperactivity produced by CCBs results from the increase of catecholamines release from sympathetic nerves, and adrenal chromaffin cells, due to its modulatory action on the interaction between intracellular signaling pathways mediated by Ca²⁺ and cAMP (Ca²⁺/cAMP signalling interaction). Then, the pharmacological modulation of this interaction by combined use of L-type CCBs, and cAMP-enhancer compounds, could be a more efficient (and safer) therapeutic strategy to produce increase of serotonergic and monoaminergic neurotransmission in the CNS due to enhance of serotonin and monoamines release, thus attenuating clinical symptoms of depression in humans

3. PSILOCYBIN OF MAGIC MUSHROOMS TO TREAT DEPRESSION

Researchers from Imperial College London may have established that a hallucinogenic drug derived from magic mushrooms could be useful in treating depression.

Researchers gave 12 people psilocybin, the active component in magic mushrooms. All had been clinically depressed for a significant amount of time – on average 17.8 years. None of the patients had responded to standard medications, such as selective serotonin re-uptake inhibitors (SSRIs),

“When one door closes, another opens. But we often look so regretfully upon the closed door that we don't see the one that has opened for us.” – Alexander Graham Bell

WHATSUP WITH MEDICAL FIELD (DEPRESSION)

or had electroconvulsive therapy.

One week after twelve patients received an oral dose of psilocybin, all experienced a marked improvement in their symptoms with 5 in complete remission. Effects were seen with a single dose while other drugs require multiple doses. Remission rate of selective serotonin reuptake inhibitors is 20%. This study only establishes the possibility of using this drug for depression. Further extensive studies are required to determine true safety and effectiveness of this drug.

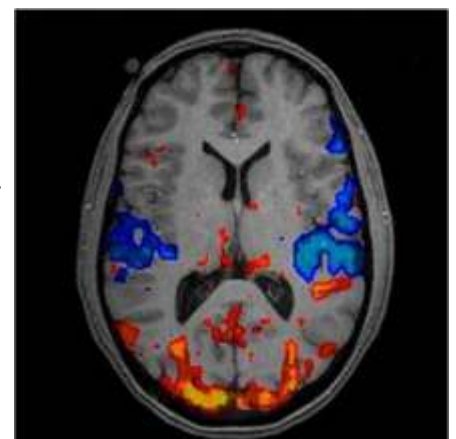


4. **JNK INHIBITORS TO TREAT DEPRESSION**

Researchers at Åbo Akademi University in Finland have made a discovery revealing new molecular pathway that regulates depression and anxiety. The researchers found that a protein called JNK when active, represses the generation of new neurons in the hippocampus, a part of the brain that controls emotions and learning. By inhibiting JNK solely in newly generated nerve cells in the hippocampus, the researchers were able to alleviate anxiety and depressive behaviour in mice. This previously unknown mechanism brings fresh insight on how the brain works to regulate mood and indicates that inhibitors of JNK, such as the one used here, can provide a new avenue for anti-depressant and anxiolytic drug development.

5. **Brain scan before antidepressant therapy may predict response**

Researchers at the University of Illinois at Chicago and the University of Michigan found that major depressive disorder patients with more communication within two brain networks on fMRI when they made a mistake while performing an assigned cognitive task were less likely to respond to antidepressant medication. The two networks are the error detection network -- which engages when someone notices they've made a mistake -- and the interference processing network, which activates when deciding what information to focus on. Patients whose brain activity was stronger in the error detection network or the interference processing network were found less likely to experience an eventual reduction of their depressive symptoms on medication. This is an important step toward individualized medicine for depression treatment. Using cognitive tests and fMRI, we may be able to identify who will respond best to antidepressant therapy.



There are two ways to live your life. One is as though nothing is a miracle. The other is as though everything is a miracle."

–Albert Einstein

EVENTS @ PIMSR

ACTIVITIES CARRIED OUT BY PIMSR DURING WORLD HEALTH WEEK 2017:

The Department of Community Medicine, PIMSR organized a series of events to observe World Health Week from March 30 2017 to April 7 2017 for awareness generation in the community. The theme for the week was “Depression; Let’s talk”. The following activities were carried out:

1. Focused Group Discussions on topics of Anxiety & Depression amongst Adolescents, Adults & Elderly of both genders : Activities in the peripheral areas and villages were carried out mainly to reach out to the community and spread the message of WHD 2017.
2. Inauguration of the week long activities for observance of World Health Day 2017 was held on 30th March, 2017 organized at the Central Auditorium of Parul University.

Dr. Dileep Mavalankar, Director, IIPH, Gandhinagar was the chief guest and Dr. Rashendu Patel was the guest of honour. Dr. Sandeep Shah, Professor and HOD, Department of Psychiatry, GMERS Medical College, Vadodara was the Key Note Speaker.

A skit on taboos related to Depression was performed by the students of Parul Institute of Public Health followed by the key note address by Dr. Sandeep Shah on details about depression and its effects.

Encouraging & motivating speeches were given by the Guest of honor and the Chief Guest.

3. Week-long activities conducted in Field Area

Week long activities were conducted in the nearby villages from 31st March to 6th April.

The following activities were carried out:



Video-show on depression



(Skit by the students on Depression)

“Noble deeds and hot baths are the best cures for depression.”

-Dodie Smith

EVENTS @ PIMSR

- Pre Test to ascertain current knowledge about Depression
- Talk on Mental Health including Anxiety & Depression by the faculty of PSM Department
- Skit & Role Play on causes, symptoms and taboos related to Depression were performed by the students of PIPH
- Informative video show on Depression



- Post Test to ascertain improvement in knowledge about Depression

4. Valedictory function

Valedictory function of World Health Day was held on 7th April, 2017. Dr. R. C. Maniar, Director Psychiatrist, GIPS Hospital, Ahmedabad was the Chief Guest and Dr. Indira Parmar, Medical Superintendent, Parul Sevashram Hospital was the Guest of Honour. An inspirational and informative lecture was given by

Dr. R. C. Maniar. Dr. Indira Parmar explained in detail regarding the various clinical presentations of mental illness and the various treatment modalities available.

5. Video competition

Students of Parul Institute of Public Health had also participated in video competition conducted by IAPSM National body to increase awareness among the community through social media.



Multi diagnostic mega camps at Kalol, Kativada, Tilakvada and Lunawada by Parul Sevashram Hospital. A team of Doctors & staff visits these districts for free medical Consultations. Thousands of patients are taking benefit of these free services.

"A positive attitude gives you power over your circumstances instead of your circumstances having power over you."

— Joyce Meyer

EVENTS @ PIMSR

Observation of World Malaria Day

Department of Community Medicine, Parul Institute of Medical Sciences and Research and Parul Institute of Nursing, Parul university organized rally on the occasion of "World Malaria Day" on 25th April at Madodhar village. This rally was organized in order to create awareness about preventive measures against Malaria, with students distributing pamphlets and imparting health education on preventive and Malaria control measures in the village.



FOOD AND KITCHEN HYGIENE INFORMATION SESSIONS FOR FOOD HANDLERS

Department of Community Medicine at Parul Institute of Medical Sciences and Research arranged for informative sessions on food and kitchen hygiene and food borne diseases for the food handlers of the various canteens/eating establishments of Parul University on 1st, 2nd and 5th June. This was done as part of an initiative to prevent food and water borne disease and to provide clean and safe food in the campus, The sessions were taken by Dr. Shashwat Nagar and Dr. Ankita Parmar, Assistant Professors, Department of Community Medicine.



"What the caterpillar calls the end of the world, the master calls a butterfly."

— Richard Bach

MEDI – QUIZ

By Dr. Soeb Jankhwala, Assistant Professor, Dept.of Microbiology, PIMSR

1. **Depressed individuals exhibit which of the following symptoms?**
 - a) Behavioral symptoms.
 - b) Physical symptoms.
 - c) Cognitive symptoms.
 - d) All of the above.
2. **In Major Depression, which of the following is a significant neurotransmitter?**
 - a) Serotonin.
 - b) Dopamine.
 - c) Betacarotene.
 - d) Acetylcholine.
3. **Depression as a side effect, is seen with the use of?**
 - a) Amphetamine
 - b) Morphine
 - c) Propranolol
 - d) Reserpine
4. **The drug of choice for depression in an old person is:**
 - a) Fluoxetine
 - b) Buspirone
 - c) Amitryptilline
 - d) Imipramine
5. **Which of the following is one of the most influential theories of depression?**
 - a) Freud's Psychodynamic Theory.
 - b) Beck's Cognitive Theory.
 - c) Seligman's Learned Helplessness Theory.
 - d) Berne's Humanistic Theory.

Answers to be Published in the next Newsletter

Answers to MCQs in previous newsletter

- 1) (a) undergoes mutation at rapid rate
- 2) (b) Western blot
- 3) (c) Helper T cells
- 4) (d) Highly Active Anti Retroviral Therapy (HAART)
- 5) (a) pneumonia

"Maybe you have to know the darkness before you can appreciate the light."

– Madeleine L'Engle

This newsletter comes to you with the
efforts of our literature club

Dr. Soeb Jankhwala

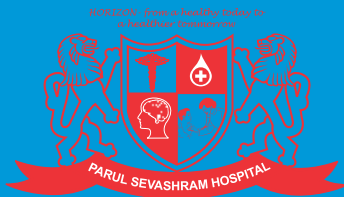
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Dr. Nadeem Shaikh

Dr. Shashwat Nagar

Dr. Nisarg Savjiani

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