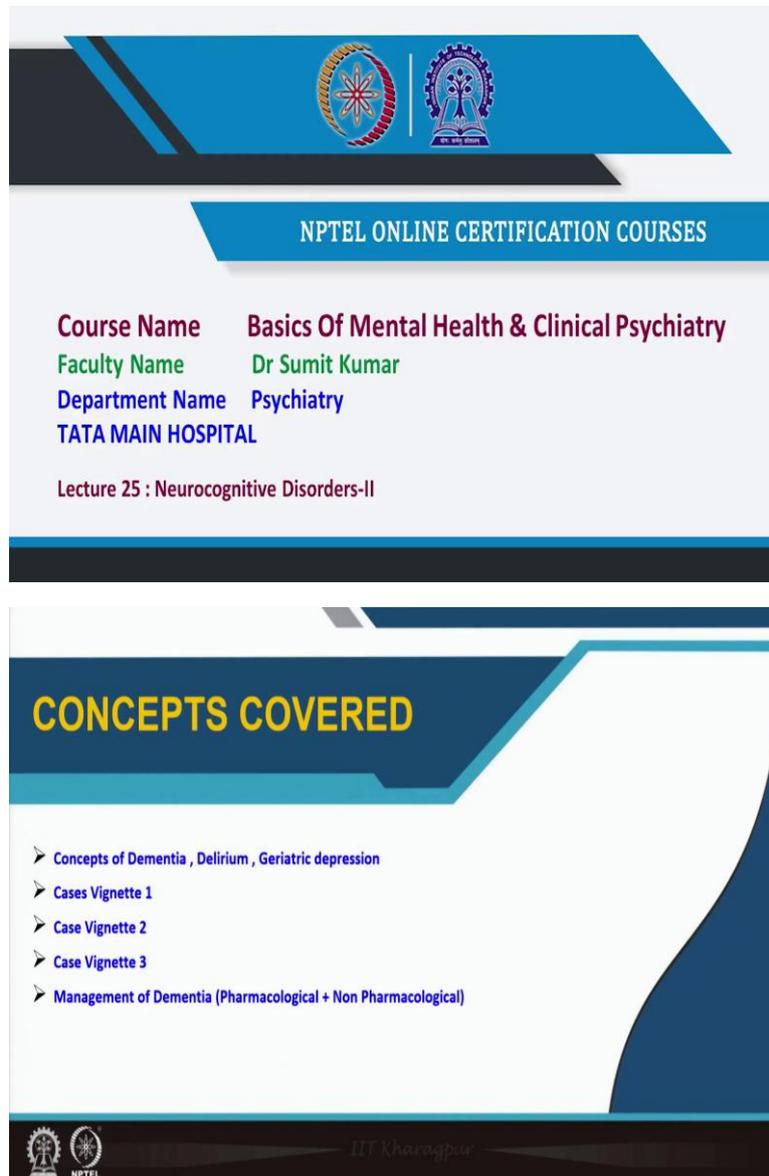


Basics of Mental Health and Clinical Psychiatry
Professor Sumit Kumar
Tata Main Hospital Jamshedpur
Lecture 25
Neurocognitive Disorders-II

(Refer Slide Time: 00:28)



The slide features a blue and white design with two logos at the top: the Indian Institute of Technology (IIT) Kharagpur logo on the left and the NPTEL logo on the right. Below the logos, the text reads "NPTEL ONLINE CERTIFICATION COURSES". The course details are listed as follows:

Course Name	Basics Of Mental Health & Clinical Psychiatry
Faculty Name	Dr Sumit Kumar
Department Name	Psychiatry
TATA MAIN HOSPITAL	

Lecture 25 : Neurocognitive Disorders-II

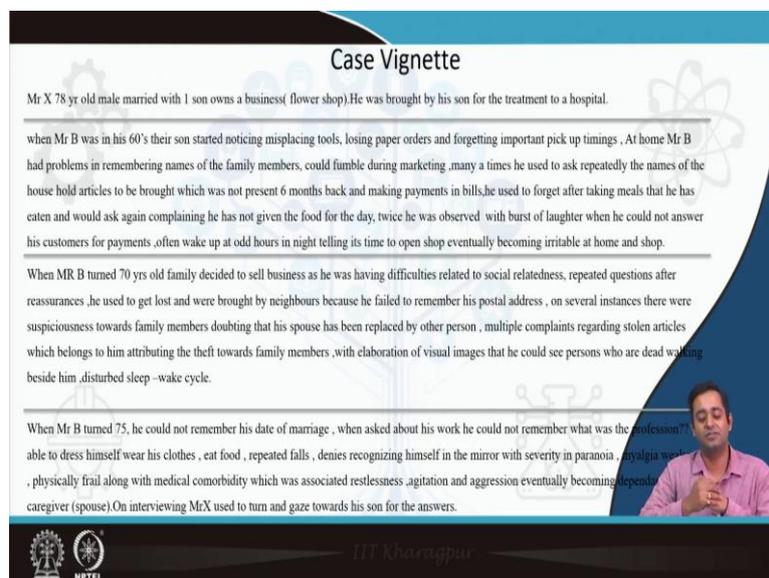
The second slide is titled "CONCEPTS COVERED" in large yellow letters. It lists the following topics:

- Concepts of Dementia , Delirium , Geriatric depression
- Cases Vignette 1
- Case Vignette 2
- Case Vignette 3
- Management of Dementia (Pharmacological + Non Pharmacological)

At the bottom of the slide, there are logos for IIT Kharagpur and NPTEL.

Hello everyone, let us start neurocognitive disorders, part two. So, this, in this section, we will be discussing the concepts that, we will try to differentiate between the dementia delirium and geriatric depression with the help of case units. And we will see how to manage the dementia, pharmacological and non-pharmacological perspective.

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So, this is the first case vignette, where we have a 78-year old male, who is married, and he is having a son owns a business that is a flower shop, and he is actually brought by his son to the clinic for assessment. So, we have actually divided this his illness, specifically into three phases. So, this is basically a case of dementia, the purpose of this case where it is to actually exemplify how the dementia presents with. So, I have divided this into three phases, early part of the illness, middle part and the later part of illness.

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Discussion: Mr X		
Sl No	Signs	Symptoms
1.	Forgetfulness	He was not able to remember timings of the deliveries along with house related work.
2.	Poor Comprehension and Dyscalculia	Not able to perform arithmetic calculations at job during payments, neither he could communicate with customers at shop.
3.	Lexical anomia	He used to forgets names of the family members as well as friends
4.	Dressing Apraxia	Not able to wear dress correctly.
5.	Catastrophic Reaction	(Pathological laughter) He used to laugh at some point in the conversation wherein it is difficult for him to answer questions simply to ignore or deviate from questions being put forward
6.	Bpsd (Delusion & Hallucination)	are hiding my possession and are making plot against me. He could see dead people around him walking (Capgras)
7.	T.V sign, magazine sign, mirror sign	Perceiving real world images of self, in television and magazine

So, what is happening in the early part of the illness, there is forgetfulness, poor comprehension, dyscalculia, he is not able to do his normal day to day life activities, and the severity, the intensity of the illness, it progresses in the middle part of the stage, and it further deteriorates and degrades further when the dementia is full blown. So, there you go, mild, moderate, and severe is being portrayed very nicely.

So, forgetfulness is then when the he is not able to remember his timings of the deliveries along with the household related work. So, since he holds a flower shop, where the customers they come and they give orders to that, this particular time my flower should be delivered. So, he forgets that he is not able to remember those specific appointments, the dates, the timings, and he is engrossed in his normal day-to-day life activities, there is poor comprehension. So, now, there is this description of arithmetic, poor arithmetic ability, poor comprehension issues, executive functions are actually hampered.

So, if you compare it with his previous six months back or two to three years, if you go back, as his son was telling that, previously, he does not used to have those calculation problems during the, when the customer used to come and give money, he used to have no problems altogether, which, as of now, currently, three years or five years down the line he is having, he starts to have those kinds of issues.

So, there is lexical anomia, word finding difficulties, he forgets the names of his family members as well as his friends, there is dressing apraxia not able to wear his dress correctly, the buttons of his shirt, this button is somewhere button here or this button goes here. So,

shirt is tied up like this or like this, or the left part of the shirt is being worn on the wrong direction, the right part or the left part is, or the right part is worn the left part, left part is worn on the right part. So, there is dressing apraxia, the patient is not able to figure out the direction the dimensional the orientation is not proper.

What is catastrophic reaction? There is pathological laughter. As I was telling you, he used to laugh at some point in the conversation, wherein he is difficult, it becomes difficult for him to answer questions simply to ignore or deviate from the question.

So, in a conversation whenever the somebody is posing a question the patient who is suffering from dementia, he forgets it, how to answer it, he does not remember the word to in order to tell the answer. So, there he laughs suddenly he laughed with a big burst of this thing. Then there can be BPSD in the later part of the illness very well then when there is full blown dementia setup, those hallucinations and delusions they certain people are hiding my possessions they are making plot against me, he could see that people are around him walking.

So, there is Capgras syndrome phenomena also. Then there can be TV sign, magazine sign and mirror sign. Patients suffering from the Alzheimer's dementia they say the figures in the televisions are actually seen in front of him the figures in the magazine, the pictorial representation, he can see right in front of them and in front of mirror he cannot visualize himself so there is mirror sign also.

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Case 2

Mr Y 76 yr old male, appears perplexed , day after surgery to repair broken hip which resulted after a fall. The neighbour who brought him stated ,he was reclusive in recent years after wifes death 6 months earlier able to function independently . There were liquor bottles which were collected from the apartment where Mr A used to live.

Laboratory values were s/o increased BUN, low albumin with increased BP 160/100, In addition to medications he had received 2mg of haloperidol after a bout of agitation.

The team which assessed him where of opinion that he answers absurdly, with irrelevant answers, disoriented to place and time,not making any sense at all. Mr A was constantly complaining of insects crawling over the skin & scratching all over the body. On further clarification it was found out there was history of alcohol dependence in Mr A.

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Let us go to case number 2. So, in case number 2, this is 76-year old man, this is basically a case of delirium, where the patient is left alone after the death of his wife, he started drinking lots of alcohol. Initially there was low, the amount was less later on it, he became dependent, so daily, he used to take alcohol and there was those important complex situation which arises and makes him more crippled. So, six months later, he was found out that he suffered from a leg injury for which he has to undergo operation. So, while undergoing operation, he went into a delirium. He was experiencing visual hallucinations, auditory hallucinations.

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Discussion : Mr Y

Anatomical area Reticular Formation of Brain stem and Dorsal tegmental pathway locus ceruleus

Reticular Formation:- controls attention and arousal-	Altered consciousness	Disorientation
Rapid onset of symptoms	Visual and Tactile hallucination	Alcohol withdrawal
Autonomic Arousal (rise in BP, diaphoresis)	Weight loss (low Albumin, anorexia)	

Rx: benzodiazepines (Lorazepam)
Antipsychotics
Thiamine

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So, the symptomatology which the patient presented with was altered consciousness does disorientation, alcohol withdrawal, it the reason for which this occurred was alcohol withdrawal, which actually gives rise to this kind of symptoms, there is rapid onset of symptoms. So, if you compare and differentiate delineate dementia with delirium, there is a rapid onset of symptoms in delirium, whereas there is a gradual onset of symptoms in dementia.

And then, there is autonomic arousal there is decreasing blood pressure there is increasing tachycardia sweating and there is weight loss as well because once the liver pathology it increases it leads to a decrease in the albumin levels increase in the liver enzymes. So, what is the anatomic area affected it is the reticular formation of the brainstem and also tegmentum pathway. Treatment is with benzodiazepines, antipsychotics for visual hallucinations, tactile auditory hallucinations, and yes, of course, thiamine and vitamins.

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Case 3

Mrs Z 67 yrs old female appears gloomy, sulky, with loss of interest in pleasurable activities, depressive ruminations that it was because of her mistakes that her husband died, difficulty concentrating in various tasks, fatigability on minimal work at home, decreased memory, disturbed sleep, loss of appetite 1 year following the demise of her spouse.

She now spends most of her time in bed thinking that she won't survive with feelings of hopelessness and helplessness, completely isolating herself from the rest of her family tried to end her life twice by consuming medicines prescribed to her by the family physician.

She is suffering from CHD, hypertension which further adds on to her misery. On interviewing Mrs Z becomes extremely irritable on asking simple answers during mental status examination, although conscious and oriented and coherent for the session. She would most of the time refuse to answer deliberately with "I don't know" expression even though she knows the answers.

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This is a case three a geriatric depression, where a lady suffers like he is living alone, she is living alone after the loss of a spouse. So, she becomes blooming sulky there is loss of interest. She also tries to commit suicide by like committing, like by consuming lots of tablets, which for her purpose she was prescribed for. So, this is actually a typical picture of a geriatric depression.

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Discussion: Mrs Z

Neurotransmitter involved: Serotonin, Dopamine, norepinephrine.

Anhedonia: loss of interest in life

Ruminations: focused attention on one distress and its consequences

Anatomical Area: striatum, thalamus, and prefrontal cortex involved in emotional and cognitive processing.

Sleep Difficulty

Interest Deficit

Guilt

Energy deficit

Concentration Deficit

Appetite

Psychomotor Retardation

Suicidal ideation: intent and lethality

Guilt: blaming herself for the death of his spouse.

Fatigability: tired in doing very light amount of work

Cognitive impairment which improves with Antidepressants or when Depression is treated

Rx: Antidepressants

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So, the neurotransmitter involved here in this case is serotonin, dopamine, norepinephrine. What are the symptoms the characteristic features which the lady presented with? There was a loss of interest in life, there was fatigability the pay the person the female was constantly blaming herself. So, there is issues of guilt that because of me, my spouse died. There is

suicidal ideation and acts of DSHS deliberate self-harm where she tries to consume lots of tablets in order to kill herself.

There was ruminations focused attention on one distress and its constant consequences. Cognitive impairment which improves with antidepressants when depression is treated. So, for her, there are sleep difficulty, interest deficit, guilt, energy deficits, concentration deficits, psychomotor retardation and suicidality. So, treatment is with antidepressants.

So, this is actually a depressive pseudo dementia. The picture gives a kind of dementia but it is actually suffering, the patient is actually suffering from depression, which is mimicking a symptom of dementia. So, treatment is this is the kind of reversible dementia depressive pseudo dementia which is treated with antidepressants. So, once the patient is treated with antidepressants, the symptoms get resolved.

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Depression	Dementia
Mr Z	Mr X
<ul style="list-style-type: none">Family aware of the dysfunctionRapid progression of symptoms.History of psychiatric dysfunction present.Patient themselves complaints of memory loss.Patients emphasis with elaborate details.Affective change pervasive.Behaviour incongruent with cognitive function.Attention and concentration often preserved well .Don't Know answers	<ul style="list-style-type: none">Family often unaware of dysfunctionSlow gradual .Previous psychiatric history not presentLittle or no complaints (Anosognosia)Patients usually conceal.Affect labile and shallow.Behaviour compatible with cognitive functionAttention and concentration impairedNear miss answers

So, that you have depression and dementia. The differences between them this is a dementia is a gradual onset course this has a rapid onset course, history of dysfunction is present in this there is no previous history of dysfunction. Here the patients they conceal, they hide their shortcomings, whereas here they give more elaborative details. Yes, I am having low mood, I am not feeling well.

Whereas in dementia, suffering from dementia, people suffering from dementia, they are having problems but they do not tell. They tend to forget their names, they tend to forget they have conflict and they have comprehension issues. They are not able to express their problems, but they actually try to conceal their problems. So, whenever you ask them; “How

are you feeling? Well, is there any problem?” The people suffering from dementia, they will tell; “No, everything is normal, I am fine.”

But for depressed patients, they will actually speak it out. So, for questions like during the assessment, if you compare the patient suffering from dementia and depression, the questions asked for depression, they will deliberately tell the person suffering from depression. They will definitely tell I do not know. But for dementia, they will give answers that can be wrong. So, there is that is why it is near with answers.

(Refer Slide Time: 09:57)

The slide is titled "Radioimaging" and contains the following text and images:

- Neuroimaging findings in LLD overlap with other diseases of aging, including Alzheimer's disease and cerebrovascular disease
- Central and cortical atrophy have been widely reported on both CT and MRI
- Both the hippocampus bilaterally and the amygdala core nuclei bilaterally showed reduced volume in depressed
- LLD is also associated with reduced frontal lobe volume
- Recently volumetric studies have identified differences between early versus late-onset LLD, with the late onset showing less frontal and more temporal and parietal atrophy.
- [MRI] - reduced CBF bilaterally in the dorsal anterior cingulate and the hippocampus

On the right side of the slide, there are four axial MRI brain scans labeled 'a', 'b', 'c', and 'd'. Below these is a diagram titled "Transverse Section Through Brain" showing various brain structures with labels: Amygdala, Corpus callosum, Septum pellucidum, Caudate nucleus, Putamen, Globus pallidus, Hypothalamus, Hippocampus, Amygdala, and Raphe nucleus.

At the bottom of the slide, there are logos for IIT Kharagpur and NPTEL, along with the text "IIT Kharagpur" and "NPTEL".

In terms of radio-imaging, the late life dementia depression the overlap with the other diseases of that is Alzheimer's disease and cerebrovascular diseases. So, you have cortical widening and cortical atrophy, this can be seen. It is associated with reduced frontal lobe volume and late onset, showing less frontal and more temporal and parietal atrophy, so this temporal parietal atrophy is likewise seen as Alzheimer's dementia, temporal parietal dementia.

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Epidemiology

- Patients suffering from Alzheimer's Dementia having Depression- **33.2%**.
- Percentage of Depression in Alzheimer's Dementia is **-30 %**.
- Delirium/Acute confusional state/Acute brain syndrome/Acute cerebral insufficiency/Toxic-Metabolic Encephalopathy" - 10-31% on admission

Intensive care units- 80%

Palliative care units- 85%

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So, in terms of epidemiologic patients suffering from Alzheimer's dementia have depression from 33.2 percent, percentage of depression is Alzheimer dementia is 30 percent. Likewise, delirium the prevalence is 10 to 31 percent, 10 to 31 percent in admission, on admission like in ICUs, intensive it is 80 percent and palliative care unit it is 85 percent.

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Recapitulation of Cases

X

- Amnesia (gradual onset)
- Apathy
- Depression
- Nominal Aphasia
- Agnosia (Anosognosia)
- Dressing Apraxia
- Psychosis ,agitation
- Catastrophic reaction

Z

- Sulky, gloomy Affect
- Guilt (demise of spouse)
- Loss of interest in Life
- Hopelessness-future, Helplessness-present state
- Fatigueability
- Appetite and sleep
- Suicidal ideation
- 1 yr duration

Y

- Perplexed Affect
- Hip surgery
- AdLs maintained
- Acute onset confusion
- Low albumin increased BP
- Haloperidol Rx
- Alcohol Dependence

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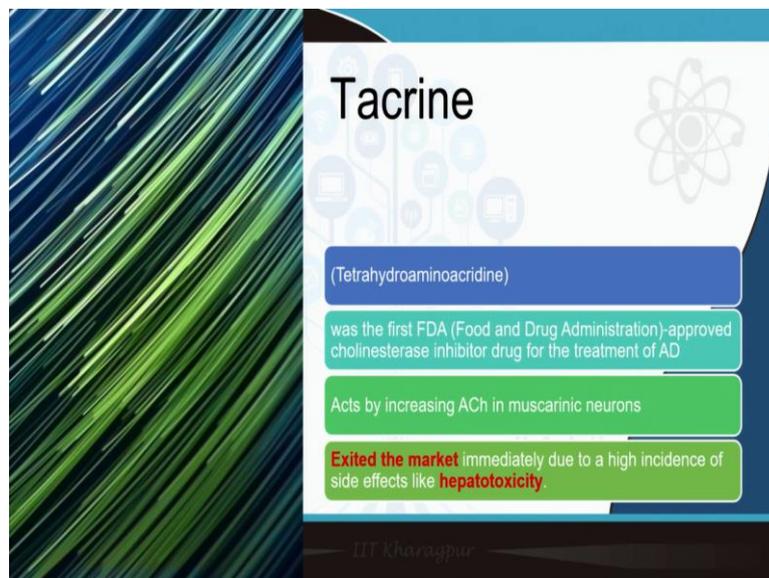
Sl No	Feature	Delirium	Depression	Dementia
1.	Onset	Acute	Variable	Insidious, Chronic
2.	Course	Short, fluctuating	Diurnal worse in the morning	Long progressive
3.	Duration	Typically short hrs to less than a month	2 weeks	Months- yrs
4.	Alertness	fluctuation	normal	Normal -until late stages
5.	Attention	Fluctuation distraction	Minimum impairment, poor concentration	Normal Until progression of disease
6.	Orientation	Fluctuation	Mostly intact	Increasing impairment over time
7.	Memory	Recent memory affected	Recent memory affected	Recent memory affected Long term memory affected with progression of illness
8.	Thought	Incoherent, Rambling, Disorganized	Hopelessness, helplessness, guilt	
9.	Perception	Acute onset, hallucinations	In Severe cases Depression with psychotic features	Can occur with Dementia with lewy bodies/late stages of Alzheimer's

So, let us just try to recapitulate those three persons who are having first dementia second was the case of delirium, and third was the case of geriatric depression. So, those three entities in case of depression you have sulky, gloomy guilt fatigability, suicidal ideation, which was present, so this gives a picture of depression.

For delirium, though, the person who suffered from delirium was due to alcohol withdrawal, delirium. This was due to a perplexed effect. He went on to he went on for a hip surgery, ADLs were maintained. This all started suddenly it was an acute onset illness with has a lot of related comorbidities.

So, this was treated with hydrocodone and some benzodiazepines with vitamins. And the first was our dementia, Alzheimer's dementia. There you have all sorts of amnesia as with which was gradual in nature, like it took years for the illness to develop, and have a full-blown picture. All sorts of apraxia, agnosia, aphasia, sometimes associated with psychosis. So, I have delineated the three entities here.

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Let us go to pharmacological management. Tacrine was the first FDA approved drug to treat Alzheimer's dementia. It is a cholinesterase inhibitor. It acts by increasing acetylcholinesterase, it is muscarinic neurons specifically, and was stopped due to hepatotoxicity levels. It causes greater hepatotoxicity side effects in the patients.

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Donepezil (Selective +Reversible)

- Donepezil is an **indanone benzylpiperidine** derivative and a second generation of AChEIs and is considered the leading drug for AD treatment.
- Donepezil binds to **Acetylcholinesterase reversibly** and inhibits acetylcholine hydrolysis, which leads to a higher concentration of ACh at the synapses.
- The drug is given in **mild -moderate cases**
- Well-tolerated with mild and transient cholinergic side effects which are related to the gastrointestinal and nervous system.
- Dose- 5-10 mg(Sustained Release formulation) up to 15 mg available but when given above 10 mg - GI effects increase.

Dr. Khavari

Donepezil it is a selective and reversible molecule. It binds to acetylcholinesterase reversibly and inhibits acetylcholine hydrolysis, which leads to higher concentration of acetylcholinesterase synapses, synaptic cleft. The drug is using mild to moderate cases, it is well tolerated with transient cholinergic side effects which are related to gastrointestinal and nervous system that those is 5 to 10 milligrams. Sustained release formulations are available and GI effect increases was there the dose is increased.

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Rivastigmine (Reversible +Noncompetitive)

- Rivastigmine is a **pseudo irreversible inhibitor** of AChE and butyrylcholinesterase (BuChE)
- Acts by binding to the two active sites of AChE (anionic and esteric sites), which results in preventing ACh metabolism.
- The drug is used in mild to moderate AD cases
- **Side effects include-**nausea, vomiting, dyspepsia, asthenia, anorexia, and weight loss.

Dose: 3 mg twice daily or 6 mg once 24 hrs patch

Dr. Khavari

Rivastigmine, rivastigmine is a pseudo irreversible inhibitor of acetylcholinesterase and butyrylcholinesterase. It acts by binding to two active sites, which helps in preventing acetylcholine metabolism and the drug is used in mild to moderate cases. Side effects include

nausea vomiting, dyspepsia. It is acidity reflux diseases, asthenia this is weakness, anorexia, loss of appetite and weight loss.

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Galantamine (Competitive, Reversible)

- First-line drug for mild to moderate AD cases.
- GAL is a selective tertiary isoquinoline alkaloid with a dual mechanism of action .
- It acts as a **competitive inhibitor of AChE** and can bind allosterically to the α -subunit of nicotinic acetylcholine receptors and activate them.
- Dose-16-24mg XL daily

Dr. Kharagpur

What is galantamine? Galantamine was first-line drug for mild to moderate cases. It is a selective tertiary isoquinoline alkaloid with a dual mechanism of action competitive inhibitor of acetylcholinesterase and bind allosterically to the side opposite to the nicotine, acetylcholinesterase receptors and they activate them. Dose is from 16 to 24 milligrams.

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Memantine (Glutamate Receptor Antagonist)

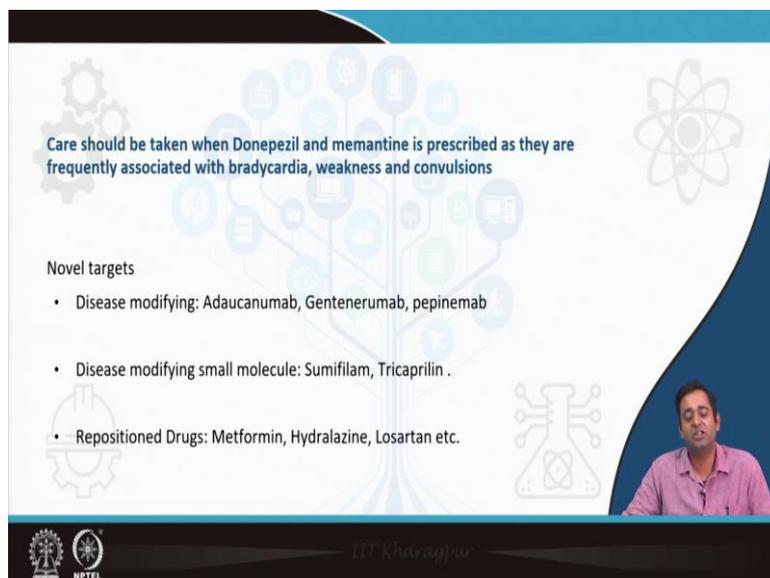
- Memantine is a low-affinity **Noncompetitive antagonist of the NMDAR**, that prevents over-activation of the glutamatergic system involved in the neurotoxicity in AD cases.
- Memantine is used for the treatment of **moderate to severe AD** alone or in combination with AChEI.
- Blocks the downstream affects of **Tonic** Glutamate release thereby improving memory and neurodegeneration, low affinity results in easy dissociation on **burst** of Glutamate and depolarization occurs.
- **Dose-20 mg daily (10 mg twice)**

Dr. Kharagpur

Memantine, memantine is a low-affinity, noncompetitive antagonists of the NMDA receptors that prevents over activation of the glutamatergic system. It is used for the treatment of

moderate to severe Alzheimer's disease. It blocks the downstream effects of tonic glutamate release, thereby improving memory and neural degeneration low affinity results in easy dissociation on burst of glutamate and depression occurs. Doses 0 to 20 milligrams daily.

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Care should be taken when Donepezil and memantine is prescribed as they are frequently associated with bradycardia, weakness and convulsions

Novel targets

- Disease modifying: Aducanumab, Gentenerumab, pepinemab
- Disease modifying small molecule: Sumifilam, Tricaprilin .
- Repositioned Drugs: Metformin, Hydralazine, Losartan etc.

The slide features a background with various scientific icons like gears, a tree of nodes, a molecular structure, and a flask. A presenter is visible in the bottom right corner of the slide frame.

Now, care should be taken when Donepezil and memantine is prescribed as they are frequently associated with bradycardia weakness and convulsions. There are noble targets which are developing and they are disease modifying drug that is Aducanumab, Gentenerumab and Pepinemab.

Disease modifying small molecules like Sumifilam and Tricaprilin. Repositioned drugs are Metformin, Hydralazine and Losartan. These are being drugs used currently in experimental phase.

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Pearlin and colleagues model of caregiver stress in family members.

- Background context (such as level of support and impact of other life events),
- Primary stressors of the illness (such as the level of help required by the patient and behavioral and psychological problems in dementia [BPSD]),
- Secondary role strains (such as family conflict and social life)
- Intrapsychic strains such as personality, competence, and role captivity of the caregiver

The flowchart illustrates the Pearlin and colleagues model of caregiver stress. It is structured as follows:

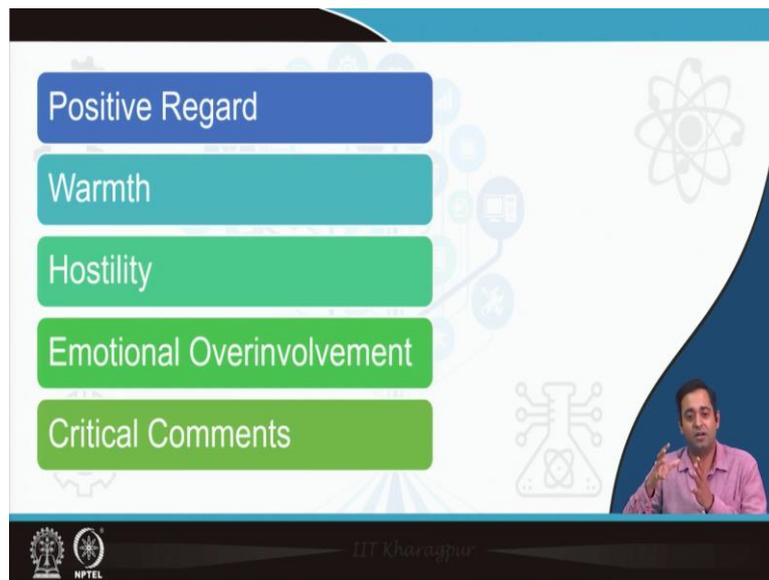
- A. Background and Context** (top box)
- B. Primary Stressors** (middle-left box, containing 'Objective' and 'Subjective' sub-boxes)
- C. Secondary Stressors** (middle-center box, containing 'Role Strain' and 'Intrapsychic Strain' sub-boxes)
- D. Outcomes** (middle-right box, containing 'Caregiver Well-being' and 'Patient Well-being' sub-boxes)
- D. Resources** (bottom box)

Arrows indicate the flow of influence: A points to B, C, and D; B points to C; C points to D; and D points to B, C, and D. Resources (D) also have arrows pointing to B, C, and D.

The non-pharmacological management of dementia. Now, this Pearlin and colleagues they have given a model for caregivers who actually takes care of the patient of Alzheimer's. So, this was basically given on the part of caregiver this this particular model.

So, you have this caregiver who is looking after the patient from a long time, there is nobody who is going to look after them the caregiver, which gave rise to like, there is this emotional that arises the express emotion on the part of caregiver which arises and give rise to a conflict in kind of situations, the personality of the caregiver, the how they relate with other family members, how they relate with the patient itself, what is the conflict situations, which give rise to this problems, it is reading to the circumstances that this model was given in order to think about the caregiver stress.

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Now, there are five basic emotional express emotions, positive regard, warmth, hostility, emotional overinvolvement and critical comments. Among this three are negative and two are positive regard and warmth and hostility, emotional involvement and critical comments are negative parts of expressed emotions.

Now, if a caregiver who is looking after a dementic patient, if he is being given the family members who is living in that situation in that family, if they are providing warmth, and they are giving satisfactory behaviors, they are behaving in a very normal, formal way, which is conducive for that caregiver and the patient to have a conducive atmosphere or a kind of situation which is normal, which creates a harmonizing situation for the patient and the caregiver to live in.

So, emotional in overinvolvement is when you always are occupied with the patient's illness that okay, please do not allow me to do this, this will create this kind of problem to her, you do not have to go alone this will create this kind of problem. So, the patient will not be able to develop independency but there is always emotional over involvement so that is being countered, that has you looked after critical comments is when the when the caregiver or the family members, they pass comments over this patient's behavior.

So, that leads to determine the behavior decreases, there is a deterioration in the behavior and the illness increases in the severity, likewise, you have hostility, the nature the behavior of the person living around the patient, there is hostility, so that has to be counteracted.

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• Psychosocial interventions encompass :

- a) Physical
- b) cognitive
- c) social activities

They have a twofold aim:

- a) They attempt to maintain or improve personal functioning, interpersonal relationships and well-being in people with dementia
- b) They try to minimize the risk of future disability.

Dementia plans and strategies across Europe revealed three main pillars associated with psychosocial care and interventions.

(1) Treatment, (2) Education, and (3) Research.

NPTEL

The psychosocial interventions, these are physical, cognitive social activities, they have a twofold aim. What are they? They attempt to maintain or improve personal functioning, interpersonal relationships. Well-being in people with dementia, they also try to minimize the risk of future disability and dementia plans and strategies across Europe reveal three main pillars associated with psychosocial care and intervention. These are treatment, education and research.

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- Physical activities-
- Reminiscence Therapy-
- Multisensory stimulation/Snoezelen-
- Massage/touch-
- Behavior management-
- Cognitive-behavioral therapy -

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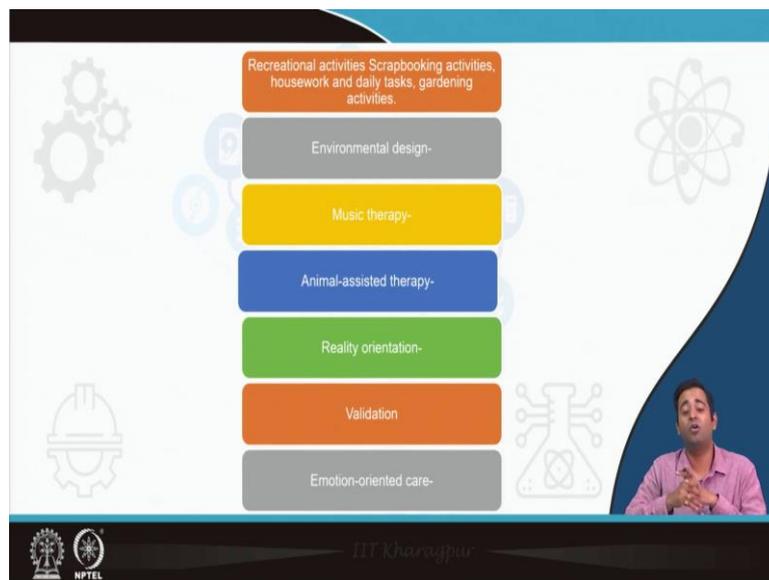
Now, how do you actually give more kind of an environment to have a emotional well-being for emotional well-being to happen? Now by giving the physical activities for dementia patient. Reminiscence therapy is when you try to reorient the dementic patient with the

picture the photograph the kind of songs, which they used to listen to previously, when they were normal when they were not having this kind of problems that is of the reminiscence past to reorient revisit them, that can make them happy.

Multisensory stimulation is like giving by making them listening to songs, any kind of activities, walk a brisk walk in the evening, or have a conversation in the family members where you are all sensory modalities, or a good movie. So, your sensory modalities, your visual sensation, or a good food which used to which the patient used to relish in the past. So, all your sensory modalities are stimulated and give a healthy picture so that patient can actually went on and give a normal level normal life.

Behavior management is you try to behave in a very harmoniously kind of way to the patient, you do not give rise to any conflicting situations, which can be detrimental on the part of patient. And yes, with the help of cognitive behavioral therapy, where you rationalize the thought processes of the patient itself.

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There can be recreational activities, like you can ask the patient to do all those kinds of works, which actually makes them happy gardening or a brisk walk in the evening or any other mild household activities which the patient might be able to do or which like to do.

Environmental design here means the rooms in which the patients suffering from dementia living there should be of light color, light blue, light yellow, which is not more stimulatory or neither more depressive to the patient, the bed is very comfortable, you have nearby lamp,

lampshades at nights, you can have mild readings as well with the novels and all. So, all those kinds of things has to be in a very harmoniously kind of manner.

Music therapy, I told you with all those songs with the patient, you should listen previously while he or she was normal, those things should be propelled for asked for to do reality orientation, the caregiver or the family member present with the patient should be always reorienting them what part of the day is it is it morning is it evening, what is the date, the day of the calendar which month of the calendar which day of the week, this actually helps reorient with the re-orient the patient. Now, emotion-oriented care is very much important because it requires the patient's normal day to day life processes to function normally.

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The slide is titled "Skills, Attitudes and Knowledge" and is part of a presentation on "Verbal Skills". It features a list of four bullet points under the heading "Verbal Skills:". The background is white with a blue header and footer, and contains several icons: a gear, a fingerprint, a person, and a chemical structure. A small video inset in the bottom right corner shows a man in a pink shirt speaking. The NPTEL logo is in the bottom left corner.

Verbal Skills:

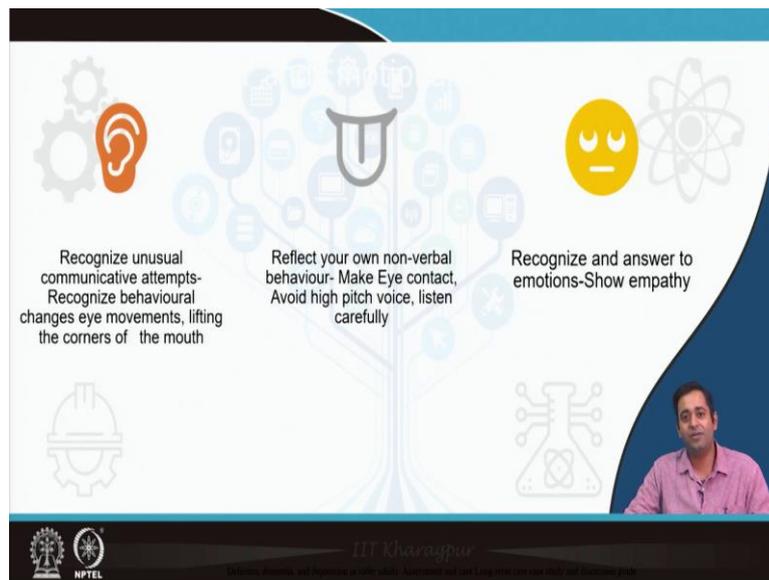
Skills, Attitudes and Knowledge

- a) Before Physical Care—Announce single activities
 - Use one step instructions
 - Delay physical assistance after verbal prompt
- b) At an early Stage of illness—Avoid arguing
 - Use of open ended questions suggest words when person is struggling.
- c) At moderate stage- Use persons names and rephrase ,repeat where necessary
- d) General skills- Identify personal communicative styles, positive atmosphere

What are the skills attitudes and knowledge? Verbal skills and before physical care you have to announce single activities like use one step instructions delay physical assistance after verbal prompt.

In early stages, you need to avoid arguing, avoid the conflicting situations where the patient might progress with like, I do not like this please do not ask me to do this. So, we need to avoid those situation we need to anticipate this before the situations can arise. At moderate stages use person's names and rephrase repeat where necessity, generate skills like identify personal communicative styles. Now, every patient has one or the other different set of skills which can be enhanced. So, try to identify that and enhance that.

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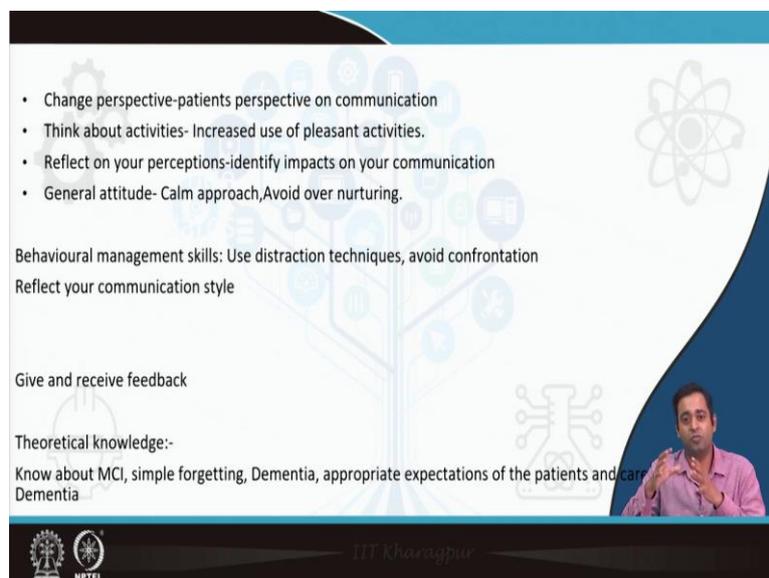
The slide features a central graphic of a tree with various icons (gears, a shield, a sad face, a brain, a microscope) as branches. The text is organized into three columns:

- Left Column:** Recognize unusual communicative attempts- Recognize behavioural changes eye movements, lifting the corners of the mouth
- Middle Column:** Reflect your own non-verbal behaviour- Make Eye contact, Avoid high pitch voice, listen carefully
- Right Column:** Recognize and answer to emotions-Show empathy

At the bottom left are the IIT Kharagpur and NPTEL logos. At the bottom right is a small video inset of the presenter.

Recognize unusual communicative attempts, recognize behavioral changes, eye movements, lifting corners of the mouth. So, your hand eye coordination your body language should be more obvious you should be able to identify those very readily, reflect your own nonverbal behavior, make eye contact avoid high-pitched voice listen carefully, recognize an answer to emotions, show empathy.

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The slide features a central graphic of a tree with various icons (gears, a shield, a sad face, a brain, a microscope) as branches. The text is organized into several sections:

- Top Section:**
 - Change perspective-patients perspective on communication
 - Think about activities- Increased use of pleasant activities.
 - Reflect on your perceptions-identify impacts on your communication
 - General attitude- Calm approach,Avoid over nurturing.
- Middle Section:** Behavioural management skills: Use distraction techniques, avoid confrontation
Reflect your communication style
- Bottom Section:** Give and receive feedback
Theoretical knowledge:-
Know about MCI, simple forgetting, Dementia, appropriate expectations of the patients and carers
Dementia

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There should be change in perspective, patient's perspective on communication, think about the activities which the patient is able to do more. So, there is increased user present activities reflect on your perception that is identify impacts on your communication, how do you relate to that patient, how do you communicate to the patient they should be in a very comfortable

kind of manner. Should we calm, approach should there should be avoid over nurturing or over nutrients given to the patient.

In terms of behavioral management skills, use distraction techniques, avoid confrontation and deflect your communication style so that the person with least communication problems can able to comprehend what you are telling to the dementia patient. Knowledge about the MCI, you should be doing very well so that you can have a clear contact with clear communication with the patient as well.

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- ❑ The Number of people affected by dementia is rapidly increasing and there are no curative treatments as yet for the dementias. Medicines only delay the progression of the disease.
- ❑ It is becoming increasingly important to understand and promote the well-being and quality of life to improve the lives of those who are affected by the condition through rapid identification and intervening the illness as early as possible so as to decrease the sufferings.
- ❑ Delirium ,Dementia,Depression delineate the clinical entities as they mimic each other.
- ❑ **It is emphasized to bring down the negative Expressed Emotion in the family by various psychosocial techniques which will create conducive environment for the pateints of Dementia to live harmoniously .**

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Dr. Khanna

The number of people affected by dementia is rapidly increasing and there are no curative treatments as yet for dementia. Medicines only degrader it delays the progression of the diseases, there are no role basically, it is becoming increasingly important to understand and promote the well-being and quality of life to improve the lives of those who are affected by the condition through rapid identification and intervening the illness as early as possible so as to decrease the sufferings of the patients suffering from dementia.

Delirium, dementia, depression, they need to be delineated as they mimic each other the symptoms. It is emphasized to bring down the negative expressed emotion in the family by various psychosocial techniques which will create conducive environment on the part of patients of dementia to live harmoniously.

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CONCLUSIONS

-In this lecture we have discussed regarding the concepts of Geriatric depression , Delirium , Dementia with the help of case vignettes.
Detailed pharmacological and Non pharmacological treatment of Dementia

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So, in this lecture we have discussed during the concepts of geriatric depression, delirium and dementia and have delineated this with the help of case vignettes with an lastly, detailed pharmacological and non-pharmacological management techniques have been discussed. Thank you.