Psychiatry an Overview
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Module-03
Psychiatric Disorders and their treatment-1
Lecture-09
Organic Syndromes

Hello again and welcome to the first lecture of this third week of the psychiatry an overview course in the last two weeks we have tried to cover and give you an overview of how the brain functions, how the brain neurons network and how do they Creator a mind and in the second week we tried to introduce to you the whole concept of normalcy and abnormalcy.

On what basis the mental illnesses are diagnosed on what basis we classify them and in some cases where we suspect that there is an underlying co-morbid illness or some other cause for behavioral disorder we try to investigate, so this week what if I will try to attempt is, try to introduce you to some major illnesses in psychiatry, something which are very commonplace words which all of you know.

And some of them are used in the common language and referring to people behavior but when we analyze behavior and when we use common words they may not always mean to be a mental illness so I will try to introduce to you about this concepts and how they are diagnosed, it will be useful for the doctors amongst you and to also to psychologists who will work with doctor in clinical psychology in other area.
Then to neuroscientist because obviously as I said in the beginning, studying abnormality maybe a window to understanding brain, through behavioral observation and through tools like imaging so let's get onto it so today, the first thing as a first thing I will like to introduce to you what we call organic mental disorder.

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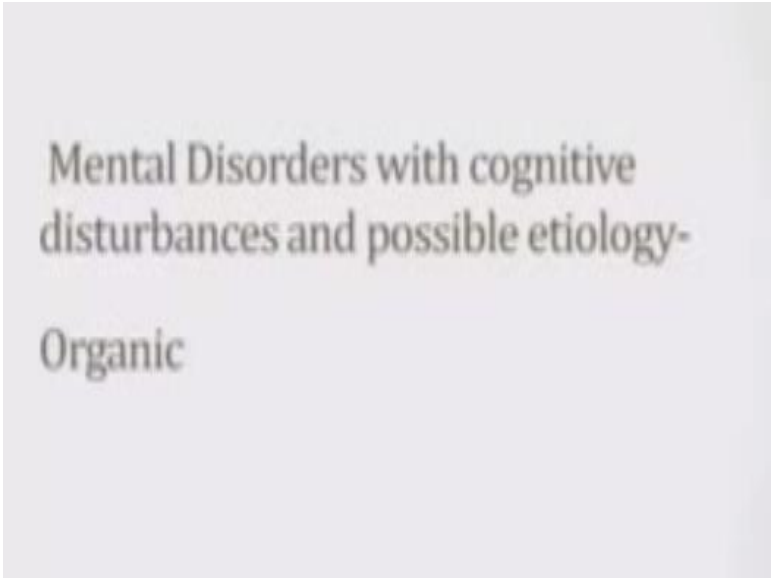

When I say organic it means arising out of the brain, it does not mean, that we are, we cannot design a cause that is not organic, what used to be called previously the functional disorder so either it is a disorder of a structure or function but either way the function can get disturbed so it all behavioral problems and all normal behavior is organic in that sense but when we talk in the classificatory system.

We look at a group of behavioral disturbances, which are called like mental disorders with cognitive disturbances and possible Aetiology, where we suspect that they may be a cause of the behavioral disturbance, but the prominent thing is cognitive disturbance cognition as you know involves thinking and your will, your cohesion, the perception largely the areas which are covered by what we call being conscious.

Not in the sense of being oriented to time place person that is also part of so orientation, thinking, perception, abstraction, all that is part of cognition, we suspect that there may be a Aetiology in it and hence we call it organic, this is one of the commonest thing which we all know.

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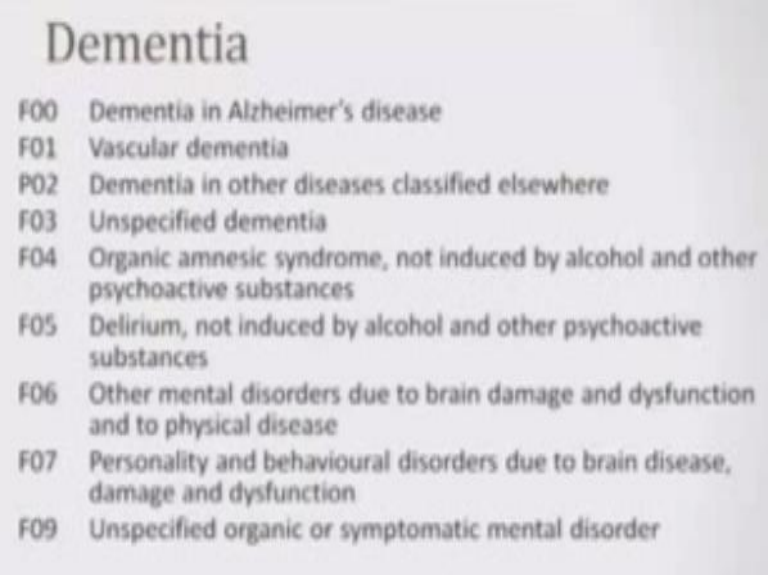

But this is like a classification we could just run through it, is like a dementia and Alzheimer's disease, vascular dementia, dementia so you can see few words you can see dementia, you can see amnesia, we can see deliria, other mental disorder due to brain damage and dysfunction, personality and behavioral disorders due to brain disease and unspecified, so broadly you know we are talking about something called dementia something about amnesia which is related to memory, deliria is another word and other mental disorder, as we go along I will explain it to you, you must have heard lot of these words in your.

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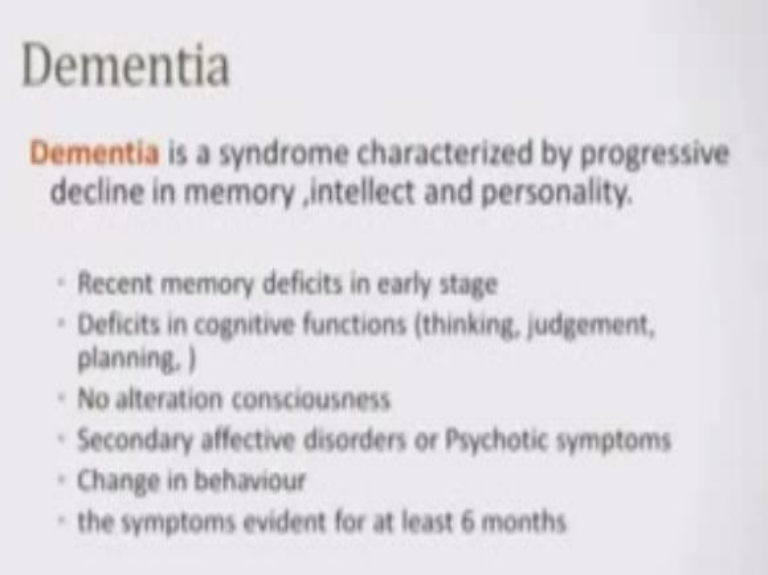

So dementia when we talk about somebody having dementia and not a pejorative term that this person is demented which is a part of language, but dementia is a syndrome with the collection of symptoms characterized by progressive decline in memory, intellect and personality so normally people start feeling that there's a problem when their tendons are people around the person.

Start noticing some recent memory deficits, now one has to differentiate between ordinary forgetfulness which all of us can have at times when our mind is true preoccupied with something or in a state of heightened emotionality we may all, suffer a little bit of forgetfulness, as the age increases, people become forgetful we all know when we see our the older generation, the older people around us.

They tend to complain that we keep something and we forward or forget the name not now all that is not dementia, that probably the benign forgetfulness associated with old age, dementia has to have, progressive decline but the first to appear in normally in the dementia of Alzheimer type is the Communist is the recent memory deficit if you remember the lecture which I gave you on the functioning and the psychology of the the very brain works.

We talked about immediate memory which is actually immediate I tell you something and you recall it back and tell me, a short-term memory where the information which goes in this consolidated and the long-term memory, so the first symptom.

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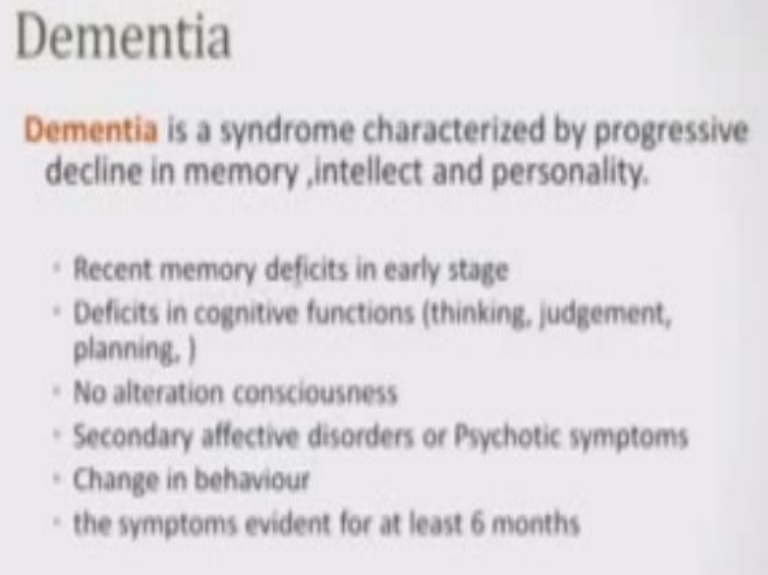

Which actually a pretty recent memory, there's a deficit in cognitive function in thinking, judgment, planning there is no alteration in the consciousness the person may be very, very oriented to time place person unless the daily progress do a very significant deficits later on, the secondary mood disturbance or psychotic symptoms we talk about psychotic symptoms previously.

You will remember it not being in touch with reality having hallucinations or delusions there's a change in behavior, which responds the change in personality and the symptoms are evident for at least six months, but this is very, very indicative because what we have found out in pathology and the histopathology and this the imaging and this in the dementia patient.

Is the area where we find the maximum damage is the hippocampus, which is deep tucked in the temporal lobe if you remember but this recent memory is the disruption of the network in that area and that's why it is the earliest to appear but as the it progresses the whole brain is like shrinking, you remember I told you that our brain is start shrinking after initial growth by 16 or 18 years of age.

And it goes on shrinking but not all of us land up in dementia so dementia is still is a point a trigger where rate it start shrinking, much faster than it happens in a benign aging process.

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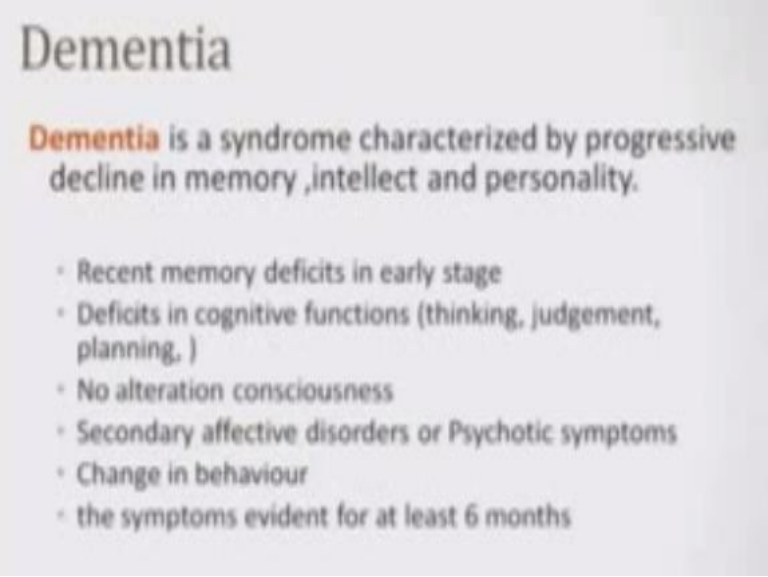

And later on these cognitive function like thinking judgment which are which are more or less controlled or they are integrated by other areas of the brain those areas also started getting damaged.

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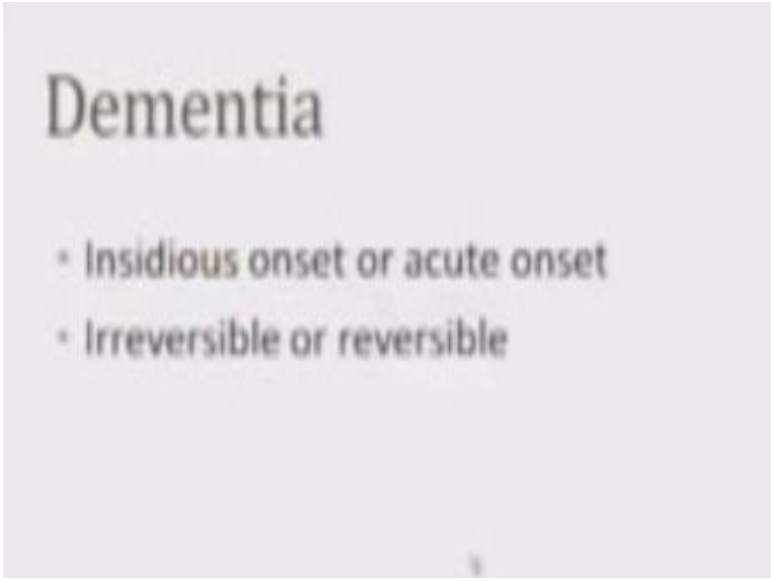

So it is insidious onset or acute onset so how do you differentiate whether you see the dementia has going slowly or it has certainly come up, this is important to know when you are judging a person as a clinician or the psychologist because that normally will give you idea whether you have to investigate further because it could be a irreversible process.

Like in dementia of Alzheimer type, or it could be a reversible process having some other causes to this decline in memory and intellect, so as I said.

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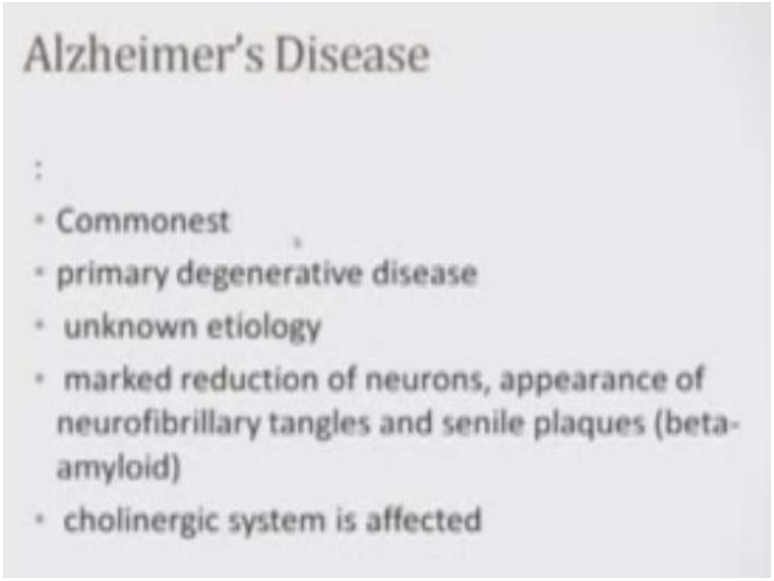

Alzheimer is the Commonest it's a primary degenerative disease, primary means that normally there is no other cause which leads to this, there are other dementia which can happen because of the cause we still do not know but cause is part of all the research but what we know with the study of post-mortem and other imaging that number of neurons and diverse a market reduction.

And all this areas where that neurons are reduced in quantity, if what we find is neurofibrillary tangles, is the appearance of neurofibrillary tangles and senile plaques this is almost a confirmed finding dementia of Alzheimer's now the other problem is but we cannot take out a brain tissue and study unless we are doing research and we get permission to study all this.

So Normally Alzheimer's type dementia remains a postmodern diagnosis with imagine a spectroscopy, nuclear magnetic spectroscopy we are able to see the changes.

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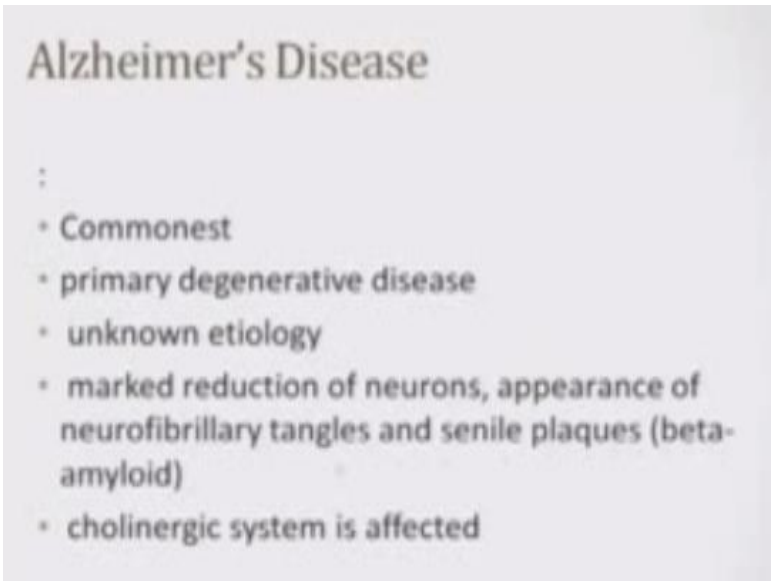

In amyloidal this type of thing but still largely it has, has not come to really clinical practice, the major disturbance in the neurotransmitter is a style is the system of a style calling now this cholinergic system is implicated in normal memory, it is also especially the what you called a nucleus basilisk of Minot and the cholinergic system in the forebrain.

They are implicated in the memory and so major damage to the neuron is, those which managed as a style Collin levels, so we have to see whether there is a dementia.

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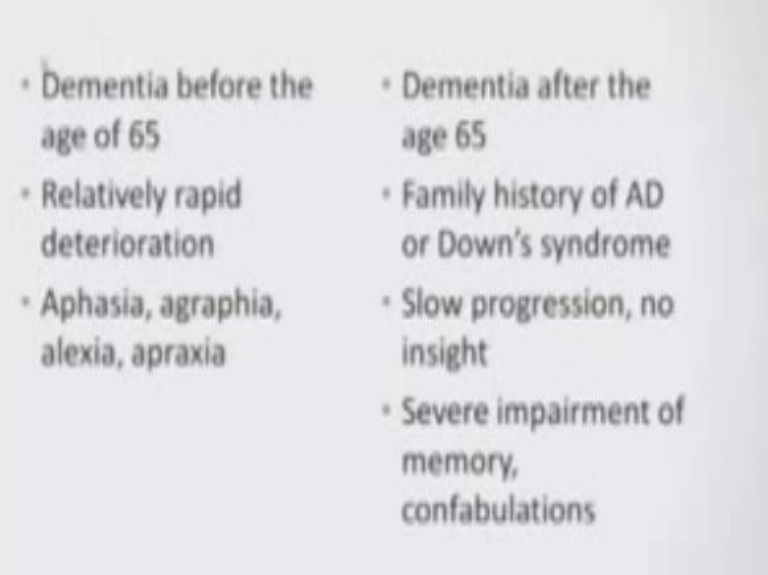

Before the age of 65, or it is after 65, if you look at the family history of Alzheimer disease or down syndrome, down syndrome is one of the, the genetic syndrome normally whom what you call a mongoloid kids this is because of a chromosomal aberration, a history of down syndrome or in people who have down syndrome they are risk of having Alzheimer as much more.

But in the people who have onset of dementia before 65 there is a very, very rapid iteration and these are like the symptoms like a fascia a graphical difficulty in writing, difficulty in reading, difficulty in coordinating complex movements like wearing a shirt or, or closing an envelope, this coordinated activities they get disrupted in the people who have on set before 65.

Whereas people who have onset of illness after 65 the it's a very ,very slow progression now and that but as the Progress they get into a Severe impairment of memory they can confabulate, they can to cover up their story the mind creates the cover of the loss of memory, the mind creates stories, there is something called pseudo dementia which in modern.

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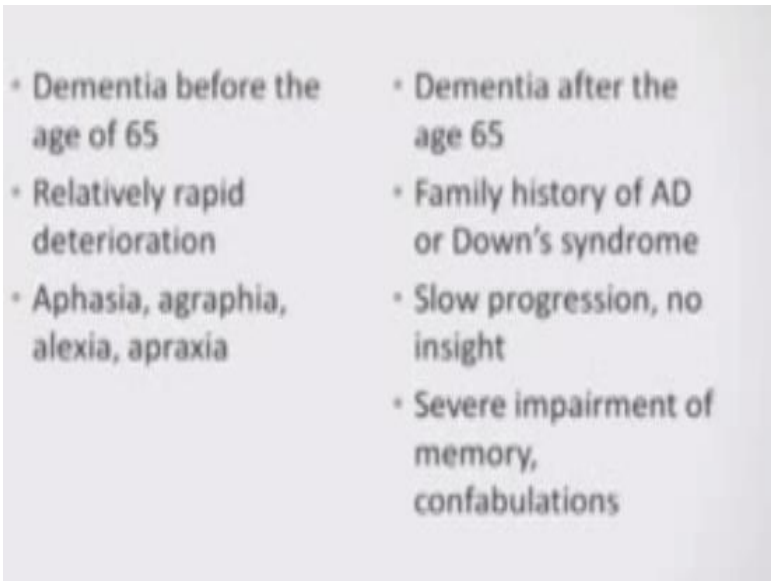

Parlance we will got it dementia with depression, one sign of it is, which is a robot sign that people who have depression and are having cognitive deficits because of depression and other illnesses they themselves complained of difficulty in remembering, whereas the person who has slowly progressing towards dementia, is slightly aware of this deficits and tries to cover up.

Till it gets out of hand for him or her it try to cover up they have no insight into it in that sense so there is no drug treatment which is very, very specific for them as disease but these are the type of drugs.

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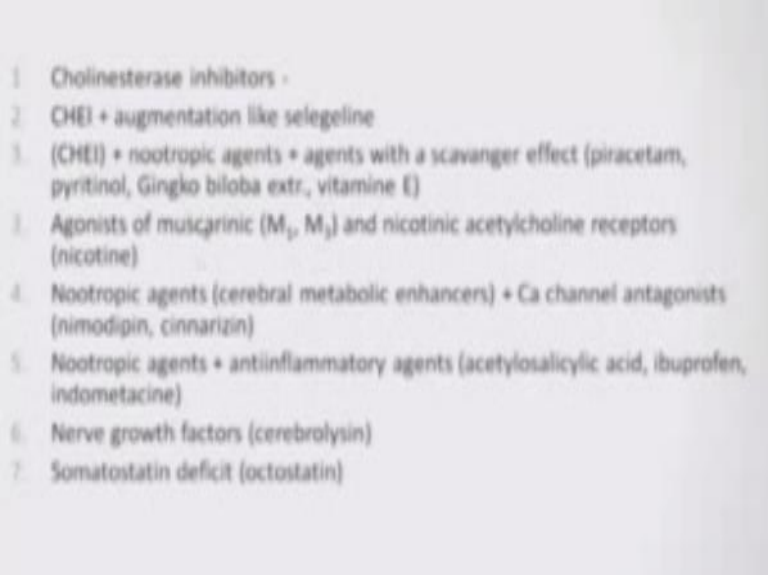

Which are used they all actually act on either enzymes, which break down as style Collin so if you prevent the breakdown of a style Collin, through this enzyme called Cholinesterase, you can see it here, in that case the style Collin levels will be high so the memory problems slightly decrease or you give something to increase their style Collin itself.

Or you use something to stimulate those receptors on which a style Colin acts because as you remember all neurotransmitters are secreted and the act on the receptors into the postsynaptic neuron, so cholinesterase inhibitors with augmentation with drugs like selegeline, no dropping agents are non specific thing, determines metabolic enhancers a lot of drugs which are being tried.

Nerve growth factors, things like aspirin, lot of these drugs are being tried but in fact if you look at it only very few of them like donepezil to some extent and these are the only drugs which to some extent can help it, but they are still not the treatment they maintain the status quo for some time.

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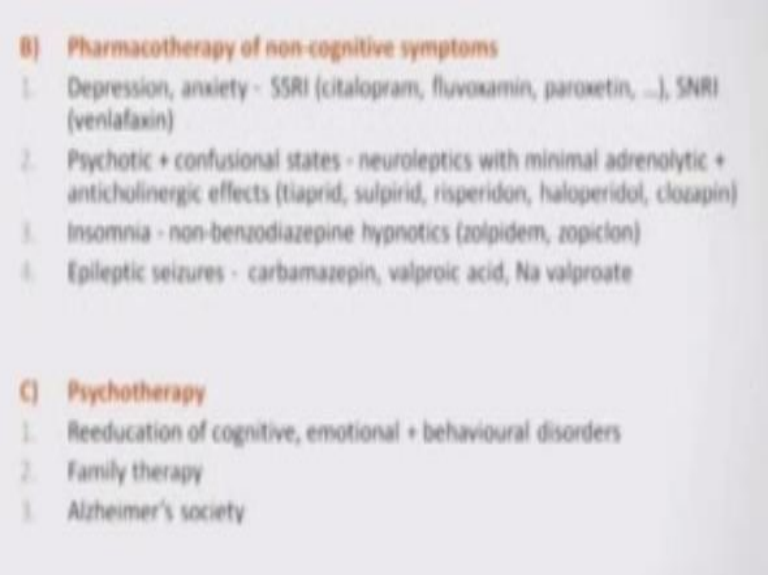

Still another phase so but what can be done these all this dementia patients may have lot of other symptoms like mode symptoms like psychotic symptoms they can be treated.

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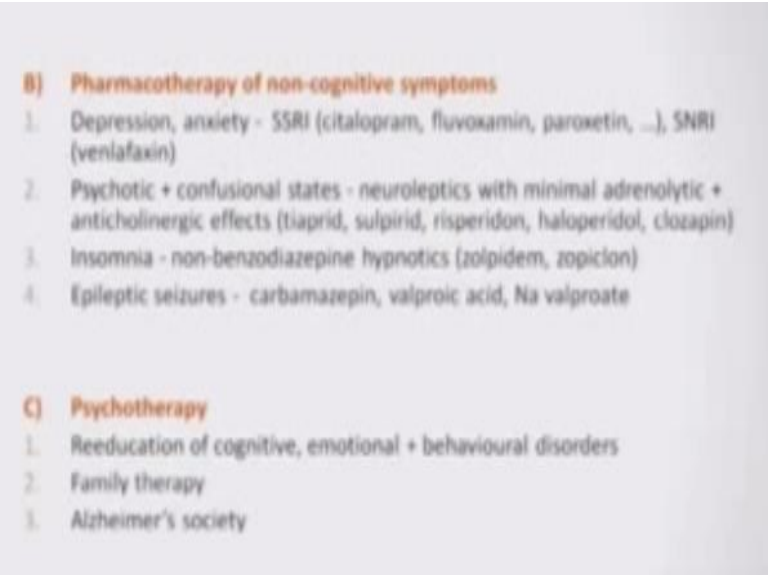

With the specific as we talked about this drug that we talk about other illnesses like for depression and anxiety the psychosis the sleep problem all this can be treated but the mainstay if you look at it and here is where clinical psychologist and rehabilitation

psychologist they come in picture, that because there is no drug treatment so in fact as the worst thing goes on it is the environment which has to adopt to the patient.

And really help him in adjusting rather than is straining the patient and expecting him or forcing him to adopt to, the environment so one has to.

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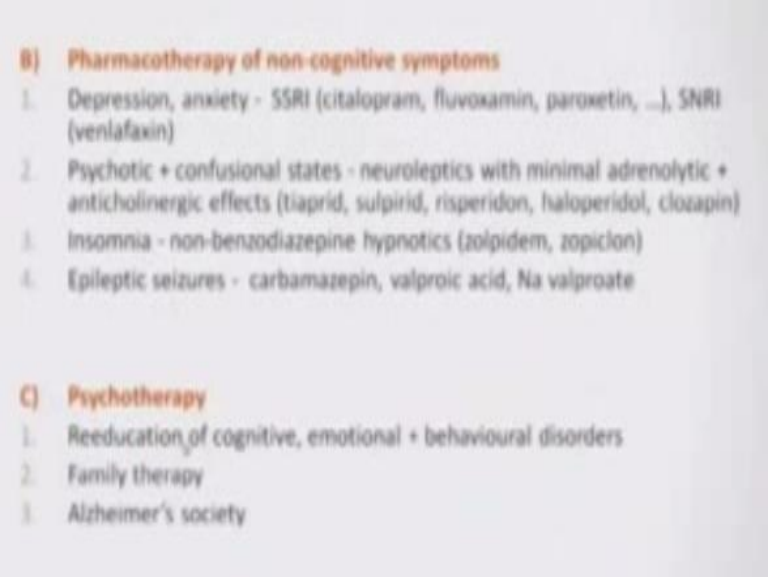

Really keep reeducating people attendant and the patient of the cognitive and emotional changes, family education and therapy is very important, like there is something called Alzheimer society which people can once diagnosed people can join and keep discussing legal self-help groups but there is small things which have to be kept in mind, while you are talking about this reeducation.

Is that instead of forcing the patient to asking him questions one can supplement with information, one can make a colored mark on the way, of the daily chores like going to the bathroom can be marked by a choleric a calendar can be put or now with all the digital technology allows can be used to keep reminding all these things go on making that, the remaining neurons active.

And reorienting some amount of neuron plasticity to the brain when it is shrinking also tries to because of Alzheimer's when it is doing it also tries to re-compensate, so re-training, retraining and Retraining that is the process, while taking care of rest of the behavioral symptoms with medication.

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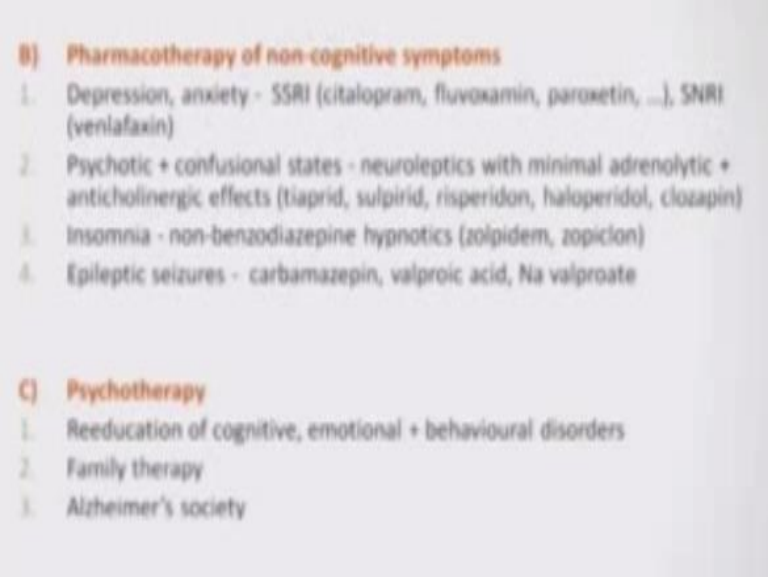

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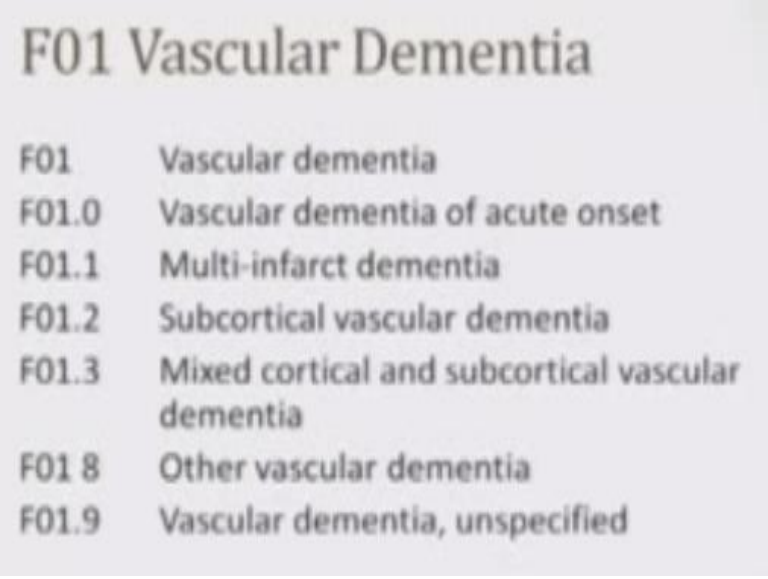

So the other dementia is like a vascular dementia with prominences of multi-infarct now vascular means.

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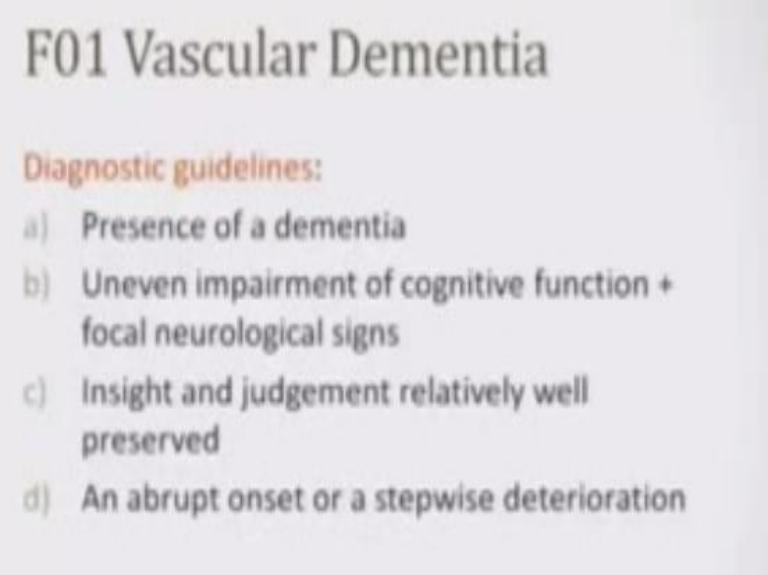

That there are signs of dementia of memory personality intellect but all this impairment is uneven it's not slow progressing in a linear curve like Alzheimer's because this dementia appears because of the damage to brain tissue, by abstracting blood supply or there's a hemorrhage in that area, now this can range from very large areas to a small pin head size in fox in deeper areas called basal ganglia.

So every time this happens there may be a worse thing of a cognitive symptom, it's like it's like a huge network of brain which we talked about there's a small node where this blood supply stop the brain tissue damage and the circuit is broken, the larger the size of the in-fact the greater the damage to so that is.

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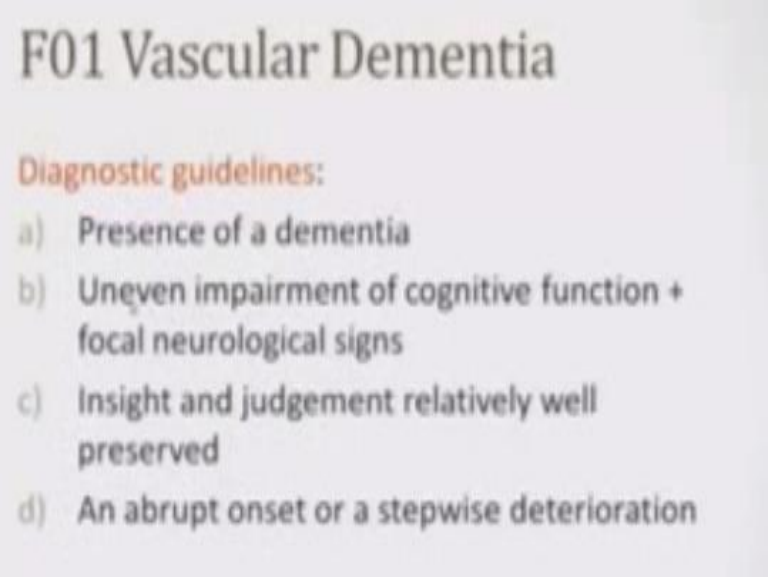

That, that used to uneven impairment because fortunately we spread into a wide area and may not be a really progressive connected thing this is dependent on the neurological science because suppose if there is a bleed or in-fact in a left cortical area with a speech areas there so there may be a speech deficiency but there may also be a paralysis of the right side of the world which is controlled by the left.

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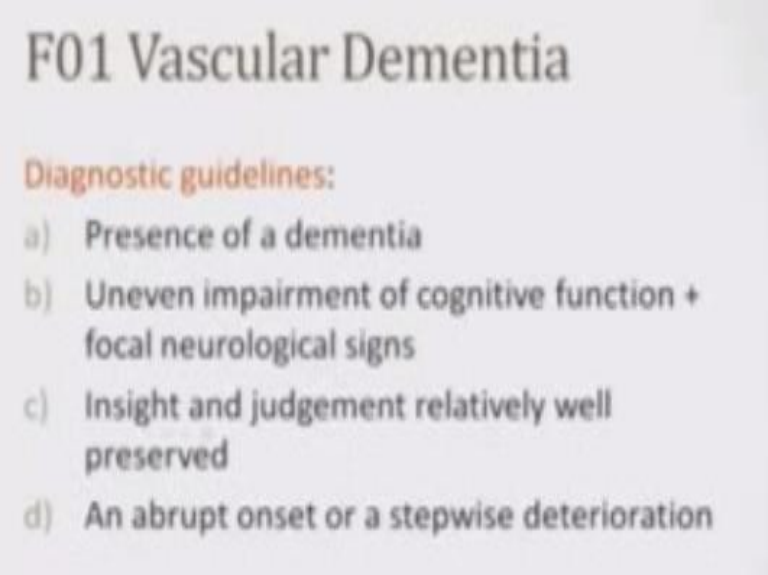

Inside that judgment are relatively well preserved under unless those areas of cortical connections are really damaged, this can have a abrupt onset as the blood supplies damage they will be a abrupt onset and a stepwise deterioration.

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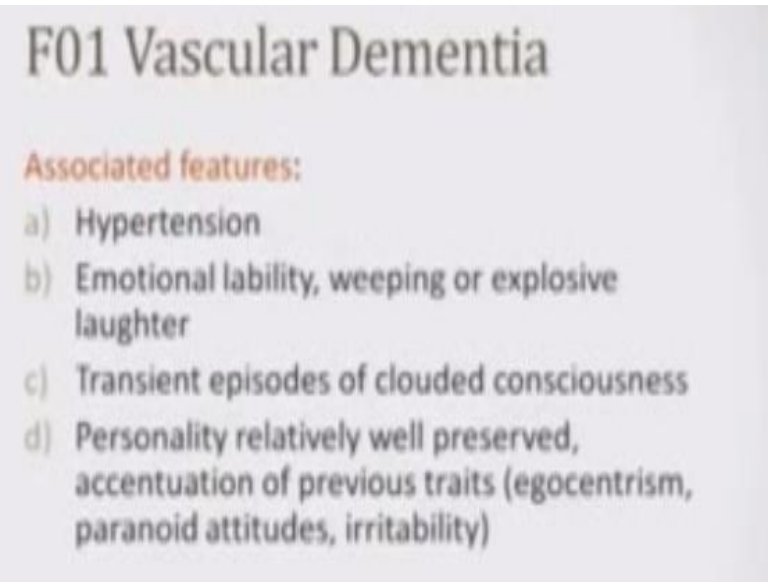

You can also the doctor should notice if there should they could be a hypertension which has to be treated depending on which area of the brain is damaged like in the frontal lobe,

at if you remember the structure of the brain this convex curvature which you see and the deeper structures depending on which area is damage you will see the syndrome of behavior according to that.

When see emotional ability people will keep suddenly switch into different moods briefly and then come back to normalcy, episodes of crowded consciousness may happen along with whenever there is a bleed or personalities largely well preserved, but normally in a vascular dementia it is the change of personality which comes first and memory the loss of memory and we said memory deficit.

As seen in Alzheimer's not so prominent, unless the infarct or the best cerebral vascular accident has actually happen in the area of hippocampus or where the pamphlet circuit where in the oriels of form, but damage to frontal lobes.

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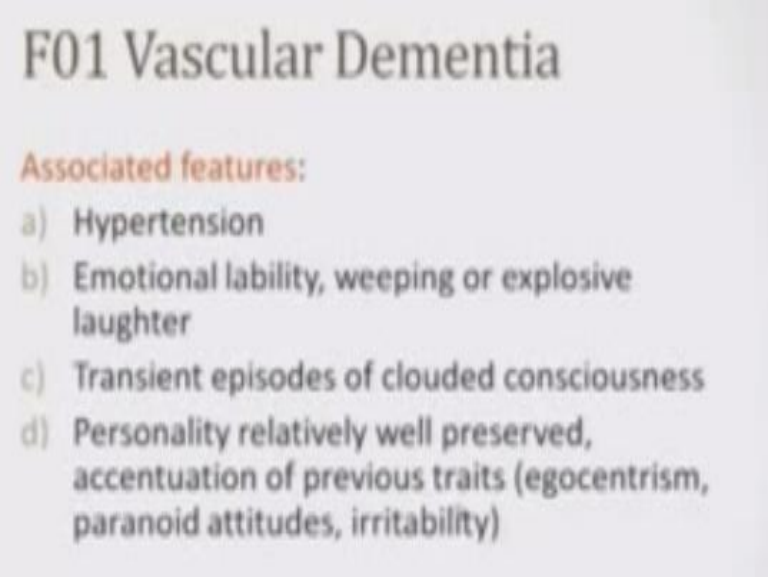

The areas which are the Central Executive networks, all this accentuation of previous traits can happen egocentrism, paranoid, irritability.

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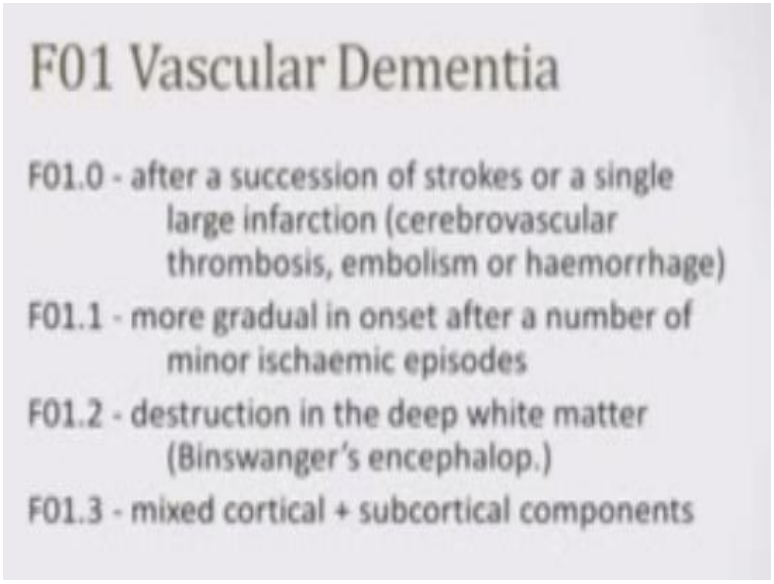

Alright so this again after section of strokes or single large in function more gradual onset after a number of minor ischaemic episode, destruction in the deep quite matter these are thus the classificatory system depending on how the determination has happened.

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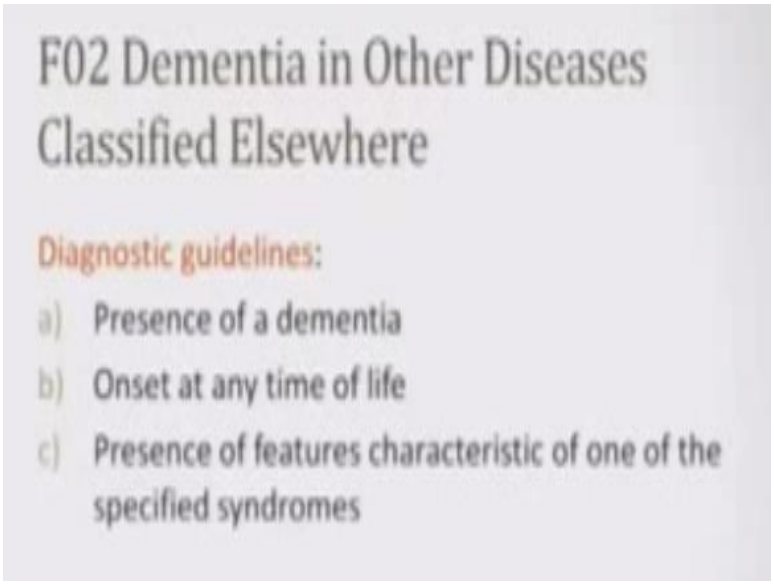

Now dementia can also happened with other diseases, this can happen at any time of life and the presence of features can be like a vascular dementia or progressive like Alzheimer's.

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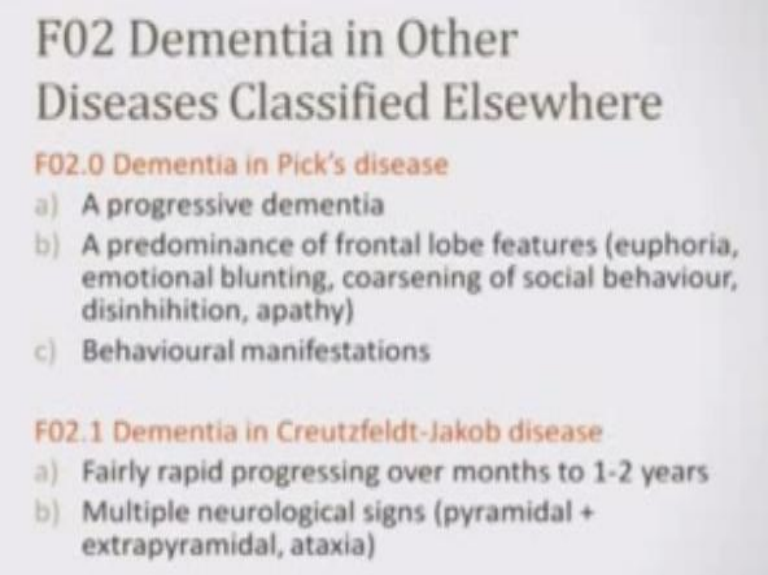

Pick's disease is another type of dementia where you real where you see the memory disturbances much literate state what suddenly happens is it's a progressive thing like Alzheimer's, but normally it's the frontal lobe as I said, the mode changes or the emotionally be blunt behavioral may suddenly change, there could be a disinhihition or total loss of interest in the surroundings.

Now if you are seeing a sudden change, in a person who has not had history of any other illness, say in a age group of 40, 55 or anything beyond 45 to 65 a sudden behavioral change and which is not transitory, it is worsening, worsening will suddenly becoming very explosive or suddenly getting very angry, moody and he does not have a history of bipolar illness or any other psychiatry illness.

One should suspect in whatever even as a layperson and an non doctoral person can also suspect that there could be something going wrong it may not necessarily be pick's disease but one should visit the doctor and get us at least a CT scan or MRI done, to know what is happening to the frontal lobe.

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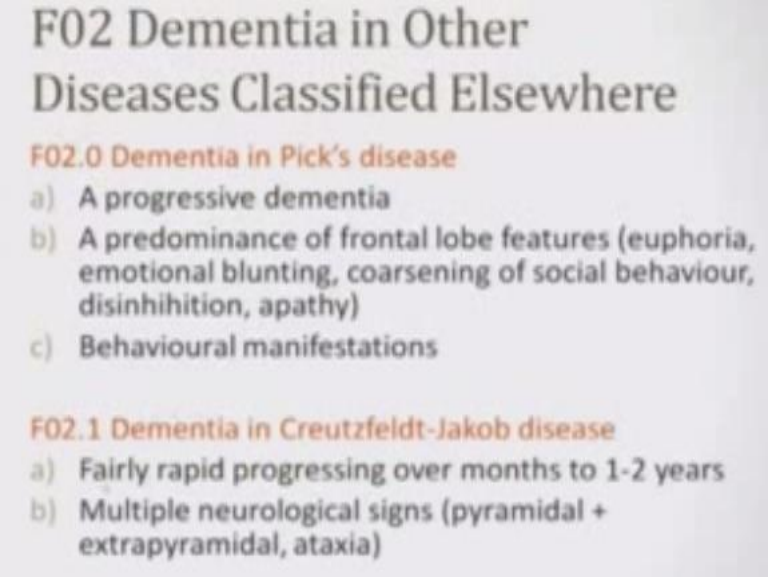

This another type of dementia which is rare but it is called Creutzfeldt-Jakob disease, it is a very rapidly progressing, from months to 1 to 2 years as Alzheimer's if you remember is a very, very slowly disease, if it is happening and its slowly grows if you are finding there is a acute onset of dementia Syndrome, once should suspect it could be a vascular thing.

And present the doctor to get a imaging done MRI and all that, or a changing behavior, but you don't suspect dementia and people of 16 or 18 so you're talking about dementia and pretty old age, roughly arbitrarily you can say before 65 or after 65 so roughly between 55 to 65 in a person who is not having any problem he starts losing memories or starts behaving abnormally.

In the sense of a abnormal behavior or explosive behavior or disinhihition or on the wise versa of withdrawn apathy it could be depression or it could be many but still you should suspect and get investigated.

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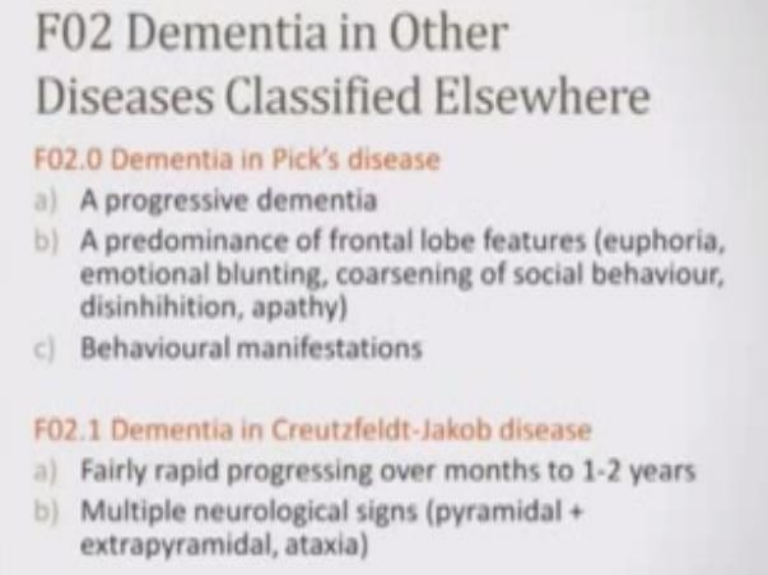

Creutzfeldt- Jakob disease is fairly rapidly progressing over months to one or two years and you can find multiple neurological science difficulty in movement or difficulty in holding things or tremor or sudden movement or jerky movements when you ask the person to walk straight like an ataxia, the person may not be able to hold on, Creutzfeldt-Jakob the disease.

The clinching evidence is EEG, find try physics slow waves and this is one of the places very easy is very useful and the other places which is useful is encephalopathy and other things, which I just briefly mentioned as they move on.

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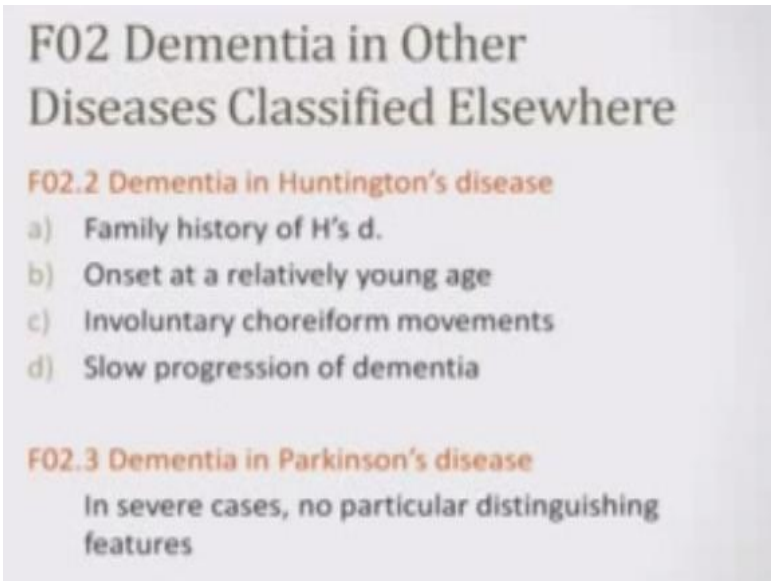

Huntington's is which under the logical genetic disease in Parkinson's disease you all would have heard it but then no definitely distinguishing features.

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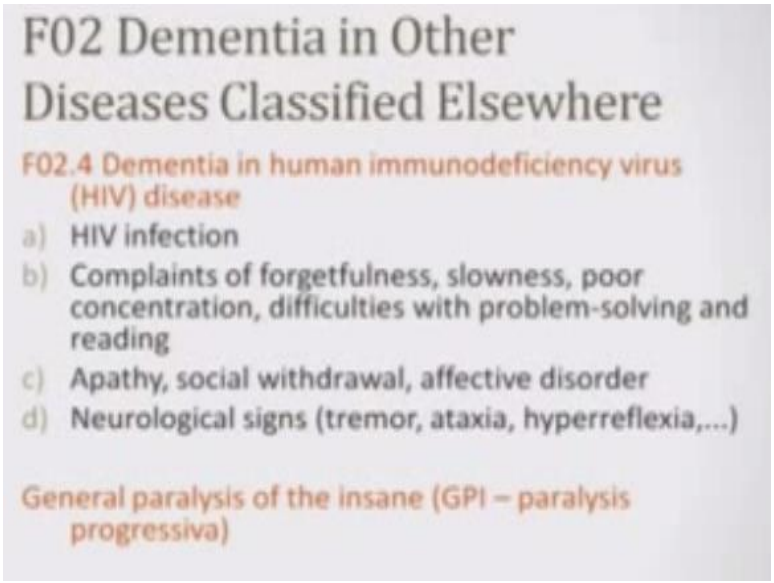

HIV is associated with dementia when it affects the brain and we see more and more patience of this, GPI for this sequel of syphilis which is become, become rare now.

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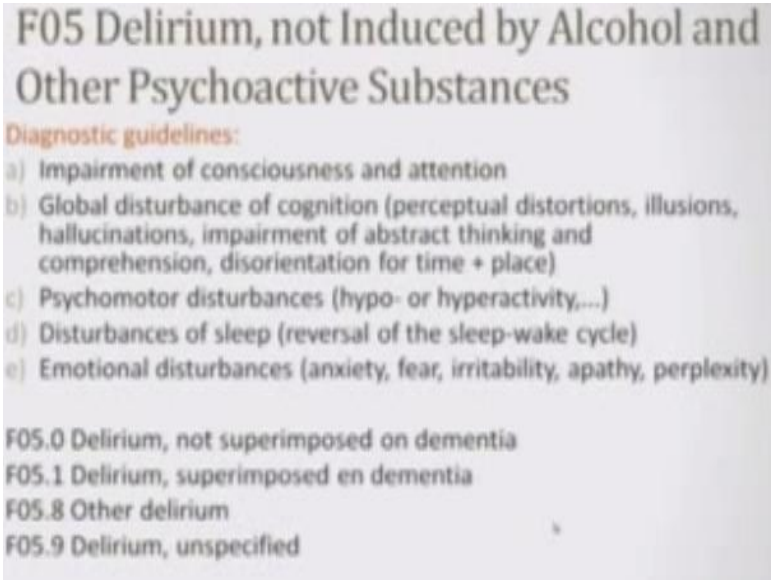

The other the organic syndrome which we is important is delirium, delirium which is not induced by alcohol another air substances so they here it is a impairment of consciousness and attention in a withdrawal phase of alcohol it happens but otherwise delirium can happen because of alcohol withdrawal but without it also, this a disturbance of cognition, perceptual distortions like hallucinations, impairment of abstract thinking, psychomotor.

Either person will be agitated or dull disturbance of sleep emotionalism that this is a transitory thing, delirium is not as progressive and continuous dementia is it is a transitory impairment of consciousness and attention the person may be living perplexed days of picking up objects in the air which is visual hallucination will not be able to think clearly will not be able to make clear judgment.

And is actually a risk to himself or to a somebody else so delirium is a is an emergency which has to be treated it is organic but a person whom you feel it suddenly was alright and because of whatever reason which can be investigated.

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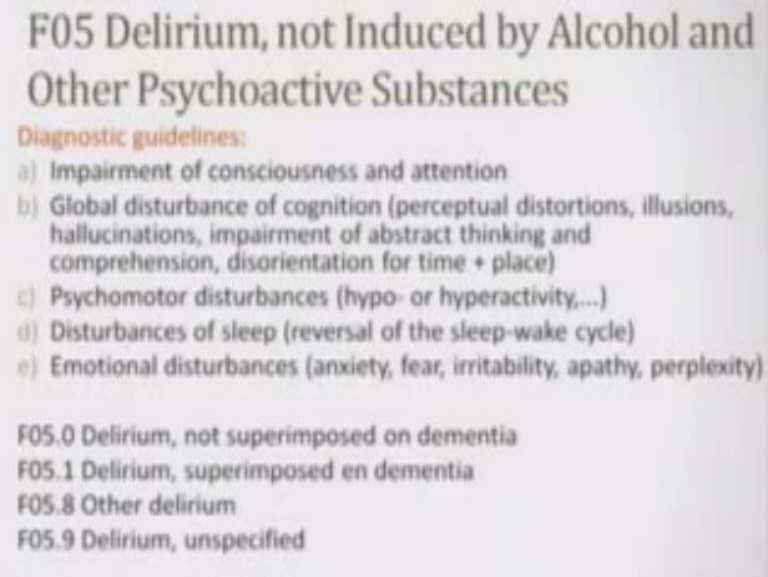

It can happen in alcohol withdrawal also the person is totally laws days and as I said you can find out if the perplexities is the is a course and confusion and perplexity, at the other thing is which is which you should look at.

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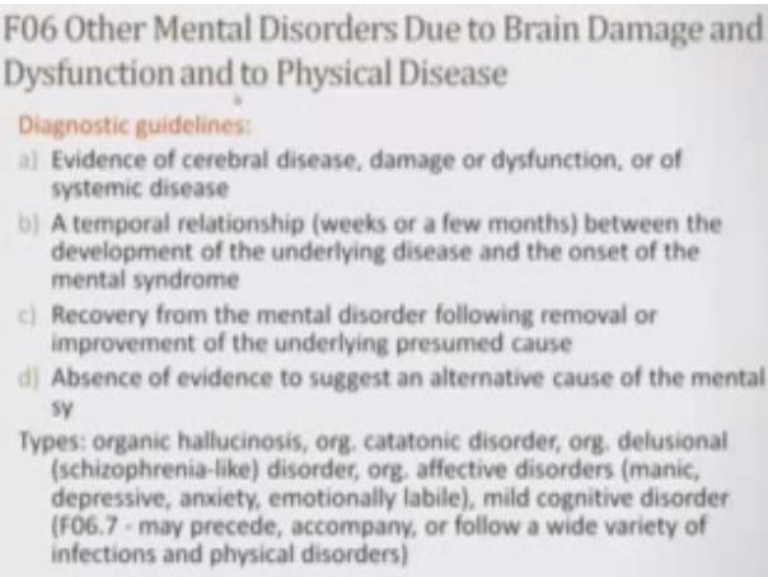

Not these are, things which can be investigated once you take to the doctor, but suspect when you find such symptom a temporal relationship between the development of the disease and the onset of mental syndrome and recovery from the mental disorder when you remove the cause but these are the type of things which like organic hallucinosis, organic catatonia, delusions these are these syndromes like affective disorder hallucinosis exactly can happen in their own right.

And they are diagnosed as such but they can also happen when there is a cause for it underlying cause like what we call organic hallucinosis or organic mode disorder. Because in, if their own right when we diagnose depression on mania normally we do not find any cause.

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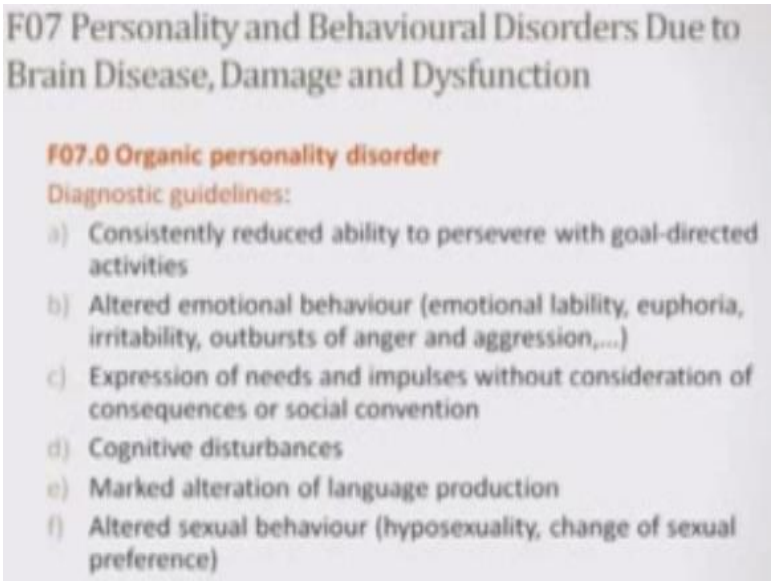

So they can be a personality change due to brain disease, this is more progressive as I said, the part of which you find it picks disease or vascular dementia.

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Brain infections can cause, injury can cause like post-concussion syndrome.

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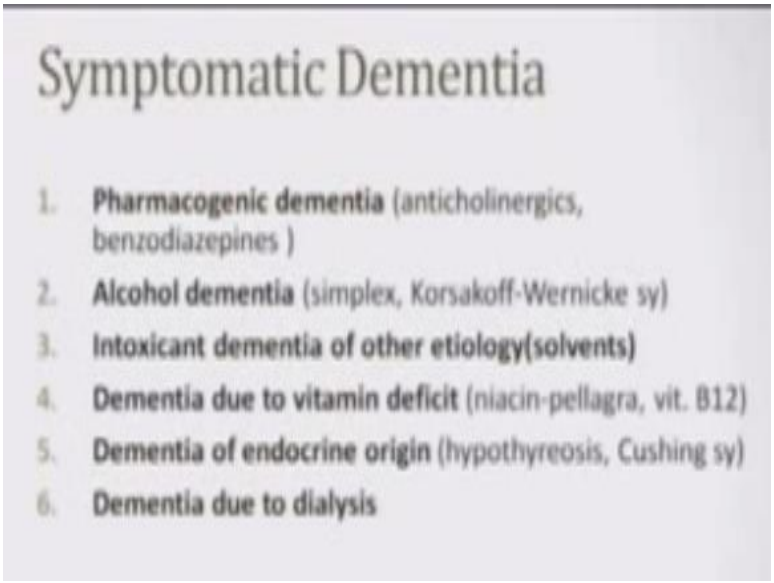

Symptomatic dimensions as I said can happen because other illnesses like with alcohol Korsakoo-Wernicke the lack of retirement, intoxication like solvent lot of people abuse solvents vitamin deficit B12 is very common, vitamin B12 deficiencies is one of the commonest cause of leading to dementia, hyper thyroid.

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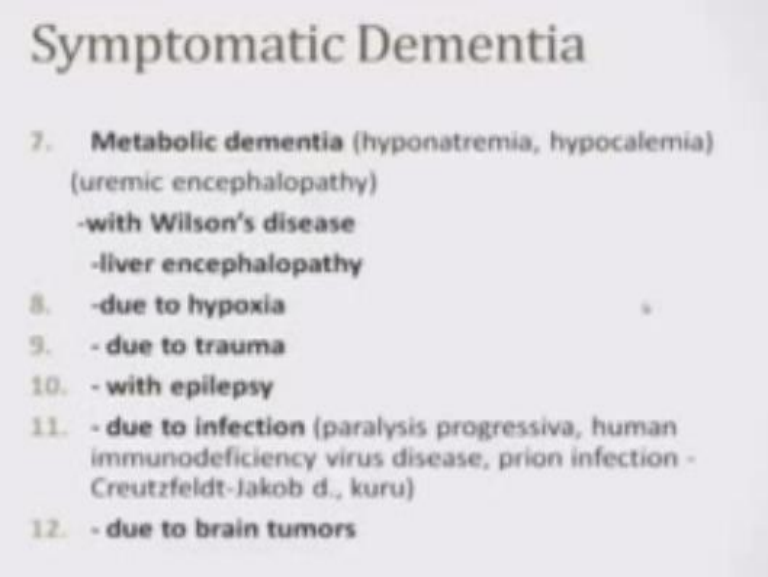

Can lead to this, metabolic dementia, hyponatremia, with kidney diseases what is called uremic, with Wilson's disease which are liver encephalopathy, hypoxia, trauma, epilepsy all this things which are affecting brain either directly or as a sequentially can lead to dementia, now just to sum it up, when as I said in the beginning, brain is electrical and chemical activity is going on continuously.

And it is the network of the brain which fires and creates the frame of reality, depending on the external stimuli in the context to which we are living and it keeps learning memorizing, not only your personal emotional declarative episodic memory but also, the reflects, the motor movement, basically to sustain you now psychiatric illnesses like we will be discussing further in a few lectures.

We have not been able to really delineate a definite cost to them for the generate or the problem in the anatomy or physiology but in some cases in a very small percentage the behavioral abnormalities may be due to underlying causes as I said symptomatic delirium or symptomatic difficulty in memory personality with it can happen because the vascular

thing it can happen because the tumor in the brain it can happen because the intoxication determine B12 deficiency in the faces of alcohol withdrawal or alcohol intoxication.

So when they happen in association of the definite cause then we call it organic, organic mood disorder or organic hallucinosis or organic hallucinosis syndrome what we call now organic personality chain, beyond this there are set of illnesses just to recap like dementia which are slowly progress progressing deterioration in memory intellect or personality.

Alzheimer's is syndrome in itself, which is progressive slow in deficits it can happen, in a in a very rapidly deteriorating fashion then you have to suspect things like usually a crop or it can happen in a stepwise deterioration which is probably happens in vascular dementia the science which you will find depends on which area of brain is getting damage.

Alzheimer's the whole brain actually gets progressively involved and in vascular dementia has not and depending on which area is damaged so this is this was a broad overview bird's-eye view of what organic is in the next session we'll talk about another major illness called schizophrenia, thank you.