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General mental status examination 1
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Overview

Changes in cognitive functioning can be found over a wide range of neurological illnesses, including Alzheimer's disease, multiple sclerosis, and brain tumors. The mental status assessment may include both informal observation of a patient and formal cognitive testing. Usually, the informal assessment of the patient's mental status starts during the history taking, as the patient's own presentation gives insight into their alertness, thought processes, behavior, emotional state, language function, and cognitive functioning. The examiner needs to make the patient feel relaxed and reassured as an anxious patient may have problems completing the tests and answering questions. It is important to not give the patient hints to help them answer the questions even if it is tempting to do so. The examiner needs to take control of the situation and should not allow family members of the patient to prompt or provide answers for them. If family members of the patient are present and attempting to do so, the examiner should gently but firmly explain to the family member that although they may be trying to help their loved one, the patient needs to be completing the task alone as part of the neurological examination.

Procedure

1. Introduction to the patient

1.1 Introduce yourself to the patient.

1.2 Explain that this examination will evaluate their nervous system.

1.3 Reassure the patient that the examination will not be painful. Patients with neurological complaints are often quite worried that they may have diseases such as a brain tumor or multiple sclerosis, therefore the examiner should make them feel relaxed.

2. General observation

Assessment of the patient should begin when the patient is first identified by the examiner. While obtaining the history from the patient or the individual accompanying them, note the patient's level of consciousness, general appearance, behavior, speech and language function, mood, thought processes, and cognitive function. Unless there is suspicion of dementia or other progressive neurodegenerative diseases, the mental status assessment is usually completed by informal observation with formal testing reserved for patients with a complaint or suspicion of cognitive dysfunction.

3. Appearance and behavior

3.1 Level of consciousness

For a brief assessment of the state of consciousness **ask the patient their name, location, and the date in a regular tone of voice.** A conscious and cooperative patient should look at you and promptly and fully give appropriate answers. Alteration in the state of consciousness (the patient's ability to be aroused and respond to environmental stimuli) is a medical emergency and requires special neurological assessment.

3.2 General appearance

Assess hygiene and attire. Is the patient clean and well taken care of? Do clothes match? Poor hygiene and a disheveled state may be a sign of confusion, dementia, or mental illness.

3.3 Behavior

Is the patient behaving appropriately for the situation?

Are they fidgety, or in contrast, are they sitting frozen, either condition possibly providing clues to movement disorders?

Are they denying that there is a problem and/or is their history being provided by a relative or spouse? These can be indicators of Alzheimer's disease.

3.4 Speech and language function

3.4.1 Assess whether the patient is speaking spontaneously or only answering questions.

3.4.2 While listening to the patient speak, determine if their speech is fluent with normal rhythm (prosody) or if their articulation is abnormal (dysarthria). Abnormalities in prosody can occur in cerebellar lesions or in lesions of the non-dominant parietal lobe.

3.4.3 Assess their pronunciation. Slurring of speech can be seen with cerebellar disease or intoxications. Dysarthria can be due to motor weakness of the muscles used to produce speech caused by stroke, or from muscle weakness as seen in diseases such as myasthenia gravis or amyotrophic lateral sclerosis.

3.4.4 Determine if the patient's language function is preserved or if there is a suggestion of aphasia, indicated by problems understanding or producing language.

3.4.4.1 Ask the patient to name parts of a watch such as the face, hands, stem, or, alternatively, parts of a coat such as the cuff, lapel, button, or button hole. Trouble with naming can occur with many toxic, metabolic, or infectious conditions and may not be aphasia.

3.4.4.2 Have the patient repeat a short phrase such as "No ifs, ands, or buts".

3.4.4.3 Note the presence of neologisms (made-up words), a possible indicator of receptive aphasia, or circumlocutious speech as is seen in expressive aphasia when the speech is unnecessarily wordy, but the patient has trouble pronouncing nouns.

4. Mood

4.1 Observe the patient's mood. Is there a flat affect?

4.2 Ask the patient "How is your mood?".

4.3 If the patient appears to be depressed, ask about suicidal thoughts with questions such as "Do you ever feel that life is no longer worth living?", or "Have you ever thought about ending your own life?". If the answers are "yes" then ask the patient "Do you have a plan for ending your life?".

If the answer to any of these questions is yes, it may not be safe to allow the patient to leave, and further emergency psychiatric assessment may be necessary.

4.4 Is the patient anxious? Is there a suggestion that the patient may be manic such as talking too fast, too loud, too much, or frequently interrupting?

4.5. Note increased fluctuations of mood (lability), with inappropriate laughing and/or crying, as can be seen in patients with a pseudobulbar state, which can be associated with entities such as Alzheimer's disease, multi-infarct state, or multiple sclerosis.

5. Thought process

Abnormal thought process may be observed in patients with progressive dementia, bilateral frontal lobe dysfunction as caused by head trauma, or normal pressure hydrocephalus.

5.1 Talk to the patient and ask them questions to discern if they have insight into their condition and if their understanding of their situation realistic.

5.2 Is their judgment intact? Are they safe in their situation at home?

5.3 Is there evidence of a flight of ideas with the patient abruptly changing topics rapidly, such as seen during mania? Is the patient incoherent without meaning to their words, as can be seen during psychosis?

5.4 Does the patient appear to be hallucinating? Are the hallucinations visual, auditory, or both? Visual hallucinations may occur in psychiatric disease, in neurological syndromes such as Lewy Body disease, or can be a side effect of medications such as those used to treat Parkinson's disease. Auditory hallucinations are more likely to occur with psychosis as seen in schizophrenia.

Summary

Usually the examiner will have a sense of the patient's mental status after the history taking is completed. If a patient appears to be cognitively intact with normal intellectual and language functions, then only the screening examination needs to be completed. When abnormalities are detected during a mental status examination, there may be a need for further psychiatric or neurological evaluation.

Abnormalities in mental status can occur in psychiatric diseases (such as schizophrenia), neurodegenerative diseases (such as Lewy Body disease), or with infectious (such as HIV), nutritional (such as B12 deficiency), toxic (such as lead poisoning) or metabolic (such as thyroid disease) conditions. To help determine the cause of impairment in a patient's mental status, the remainder of the nervous system needs to be examined for other abnormalities that can provide further clues to the unifying diagnosis.