

DRUG INDUCED MOVEMENT DISORDERS: EVALUATION

This examination for drug induced movement disorders takes 3 to 5 minutes. Therefore, it can easily be integrated into everyday clinical practice.

Ask your patient to sit in a chair preferable without armrests, and explain that some medicines can cause movement disorders and that a short evaluation can establish if that is the case.

ANAMNESIS

1) GENERAL

- a) Do you have anything in your mouth (e.g., candy)? If so, please remove it.
- b) Are you currently having any problems with your teeth or dentures?
- c) How do you tolerate the medicine? Have you experienced any side effects?
- d) Have you experienced movements over which you have no control? Did this happen before? Did it occur after you started taking the medicine?

2) DYSKINESIA/DYSTONIA

- a) Have you noticed that the muscles around your mouth, lips, jaw or tongue sometimes move on their own without your wanting them to? Do any other muscles move of their own accord, for example your hands/fingers, feet/toes, neck, face, eyelids?
- b) Have you noticed muscles spasm sometimes? Did your head tilt to the side? Did your eyes close involuntary? Did your eyes turn up involuntary or anything similar?
- c) Do you have problems eating, swallowing, talking, writing, walking, getting dressed, hygiene or anything similar? Is it caused by the involuntary movements?

3) PARKINSONISM

- a) Are you slower than usual? Are movements more difficult, do you feel stiff?
- b) Has your voice changed, less understandable, less loud?
- c) Have you noticed that you make more saliva? Does it bother you?
- d) Do you sometimes have problems with trembling (demonstrate resting tremor of the hand)?
- e) Has your handwriting changed since you have been taking medicines

4) AKATHISIA

Do you feel restless? Particularly in your legs? Is it difficult for you to sit still? Do you tend to keep moving your legs?

5) MYOCLONUS

Explain what myoclonus is. Myoclonus is a brief, sudden jerk caused by muscle contraction. You probably recognize this, for example just before you fall asleep. Do you now experience this more frequently than before you started using medicines?

6) GENERAL

- a) Do the symptoms change over the course of the day? If yes, how?
- b) Are there specific situations that provoke, worsen or lessen the movements?
- c) Are there any additional noteworthy phenomena (numbness, pain, sensory trick (reduction of dystonic movements by touching the affected or adjacent body parts))?
- d) Do the involuntary movements embarrass you?

THE EXAMINATION

The examination is done with the patient in a sitting position unless otherwise noted.

- 1) ASK YOUR PATIENT TO SIT RELAXED, WITH HANDS ON THE THIGHS.
Look for: dyskinesia, dystonia, akathisia, poverty of movement, tremor; breathing pattern (irregular? fast?).
- 2) ASK PATIENT TO SIT BENT OVER WITH ELBOWS ON KNEES AND ARMS HANGING BETWEEN LEGS.
Look for: tremor in the hands.
- 3) ASK YOUR PATIENT TO DROP HIS/HER ARMS TO THE SIDE.
Look for: dyskinesia or tremor of the hands/fingers/legs/jaw or anywhere else.
In the case of dyskinesia of the hands or trunk, also observe the patient's toes.
- 4) ASK YOUR PATIENT TO STRETCH HIS/HER ARMS STRAIGHT OUT IN FRONT, WITH PALMS FACING DOWN AND FINGERS SLIGHTLY SPREAD OUT.
Look for: postural tremor in the hands. A very slight tremor is often normal.
- 5) ASK YOUR PATIENT TO PERFORM THE FOLLOWING MOVEMENTS SEVERAL TIMES (LEFT AND RIGHT IN SUCCESSION AND AS FAST AS POSSIBLE).
Look for: poverty of movement and getting fatigued.
 - a. Open and shut the hand entirely.
 - b. Make a large scissoring motion between the thumb and index finger.
 - c. Make a turning movement with the hand as if screwing in a light bulb (as far back and forth).
 - d. Stamp the heel on the ground, raising the foot about 5 cm.
- 6) PROVOKE DYSKINESIA AROUND THE MOUTH.
Ask the patient to touch the tips of the fingers with the thumb of the same hand as fast as possible.
Look for: dyskinesia around the mouth.
- 7) ASK THE PATIENT TO OPEN HIS/HER MOUTH AND EXAMINE THE TONGUE; IF IN DOUBT, PERFORM SAME PROVOCATION TEST. EXAMINE THE TONGUE TWICE.
Look for: turning, worm-like movements, involuntary sticking out of the tongue, sticking the tongue repeatedly in the cheek. Saliva flow? Condition of the teeth? A slight tremor when sticking out the tongue is normal.
- 8) BEND AND STRETCH YOUR PATIENT'S ARMS AND LEGS AND MOVE HER/HIS HEAD.
Evaluate: stiffness (rigidity), which feels like bending a lead pipe or sometimes like a rhythmic interruption while bending, as with a ratchet.
- 9) ASK THE PATIENT TO WALK APPROXIMATELY 20 METERS (FOR EXAMPLE IN THE HALL), FAR ENOUGH FOR A NORMAL GAIT TO DEVELOP.
Look for: Is standing up difficult? During walking, pay attention to the arm swing, the length of the stride, bent posture, facial expression and the development of or increase in dyskinesias, dystonias or tremors (particularly in the hands).
- 10) PROVOKE AKATHISIA.
Back in the examination room, ask your patient to stand (you stand also).
Look for: the legs (walking in place, repeated contraction of the calf muscles).
- 11) ASK YOUR PATIENT TO WRITE SOMETHING AND TO DRAW AN ARCHIMEDEAN SPIRAL.
Look for: tremor, micrographia, clumsiness, writers cramp. Notice any development of, or increase in dyskinesia or dystonia.