Management of a HIV-infected patient with a psychiatric disorder

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Main complaint

- **Mr M is a 30-year-old HIV+ man**
- **In his regular visit to his HIV physician:**
  - **for the last 8 months he feels low energy and some memory difficulties**

Medical history

- HIV+ and HCV+ since 1992
- He has remained asymptomatic
- He started HAART in 2003
  - CD4 = 212; viral load = 182,000
- After starting HAART:
  - CD4 ~600s and undetectable VL
- He lives alone and has a high-level job
- He is meticulous – dresses impeccably

Current symptoms

- **In the last 8 months he has felt a loss of energy and difficulties with memory**
- **He thought this was due to work-related stress in the last 2–3 years**
- **He started to increase the intake of cocaine and alcohol to get more energy and to sleep better. This was only useful for a short time**
- **Two vacations did not help**

Differential diagnosis?

1. **Substance use disorder**
2. **Endocrine disorders (hypothyroidism, hypogonadism, adrenal insufficiency)**
3. **Opportunistic diseases / CNS cancer**
4. **Cognitive disorder due to HIV and / or HCV encephalitis**
5. **Depression / anxiety**

CNS = central nervous system

Which tests do we need?

1. General laboratory tests (haematology and biochemistry)
2. Hormones
3. Brain imaging
4. Mental health evaluation (by Psychiatry)
5. Anything else?

Results

- **Complete blood count and liver function tests: wnl**
- **Thyroid function tests: wnl**
- **Testosterone levels:**
  - **Free testosterone: 10.1 ng/dL [10.5-55]**
  - **Total testosterone: 550 ng/dL [437-707]**
- **CD4 ~600/mm^3 and undetectable VL**
- **Brain CT scan showed no significant changes**

wnl = within normal limits; CT =

Medical intervention

- **HAART was maintained**
- **Testosterone replacement initiated**
- **Patient referred to Psychiatry for mental health evaluation**

Mental health evaluation (family history)

- Mother: somatic anxiety symptoms
  - Died of cancer 2 years ago
- Father: alcoholism
- One sister with anxiety disorders

Mental health evaluation (personal history I)

- Personality traits: anxious, excessive and obsessive thinking
- Lives alone
- Separated from his partner 1 year ago
- Short social network (isolated)
- Normal developmental history – no learning disorders. Education through college and graduate professional school
- Highly qualified job and a high degree of responsibility

Mental health evaluation (personal history II)

- Adjustment disorder in 1992 (HIV diagnosis) and in 2003 (started with HAART)
- Alcohol and cocaine use for many years
- Occasional use of marijuana

Mental status examination

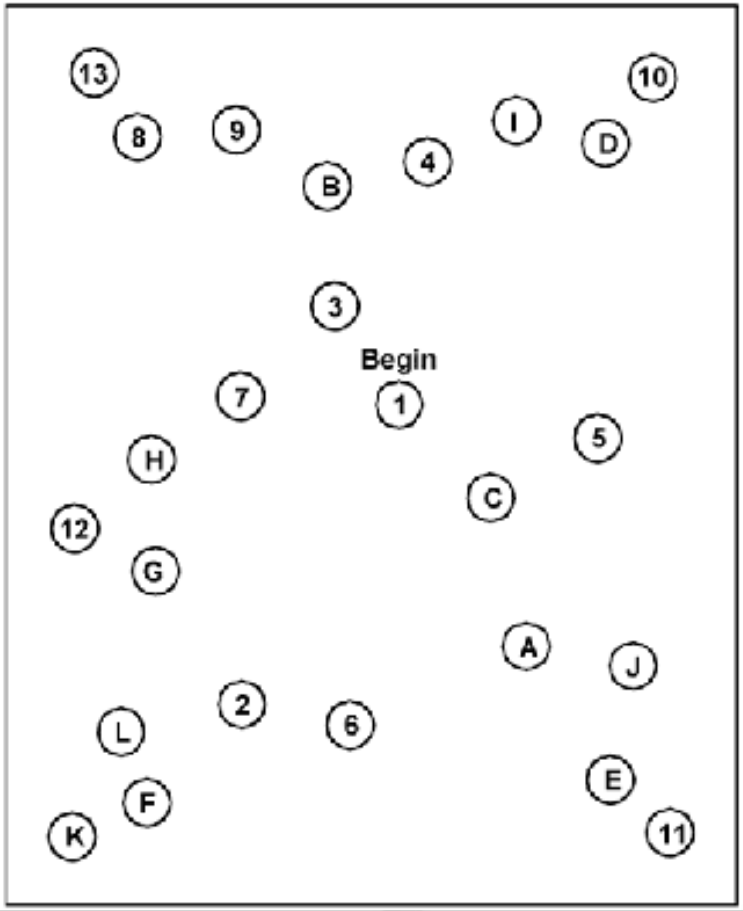
- Appearance: well developed, well dressed, good eye contact
- Oriented x 3
- Thoughts: coherent, goal oriented, content appropriate to affect
- Speech: not pressured or slowed
- Affect is somewhat anxious, increased difficulty with sleep and appetite, related to work stress
- Decreased sexual drive, related to work stress
- No evidence of psychotic thinking, no auditory or visual hallucinations, no delusions, not paranoid

Cognitive examination

Test	Result
Memory 4 words	3/4, but 4/4 with cue
Serial 7s	OK
5 digits	Forward and backward
Trials A	OK
Trials B	2 errors
Judgment	Intact
Draw a cube	Intact
Clock	Intact
Word generation	Slow

Brief neuropsychological tests

Trail Making Test (TMT)-B



Hospital Anxiety and Depression Scale

Zigmond AS, Snaith RP. The Hospital Anxiety and Depression Scale.

Acta Psychiatr Scand 1983;67:361–70

- **Anxiety subscale: 3 (cut-off score = 10)**
- **Depression subscale: 6 (cut-off score = 10)**

What recommendations would you expect to receive from the Psychiatrist?

1. Treat the alcohol/cocaine use disorder
2. Initiate testosterone replacement
3. Consider psychotherapy

Recommendations received from the Psychiatrist

- **Treat the alcohol / cocaine use disorder**
- **Continue testosterone replacement**
- **Initiate psychopharmacological treatment of sleep disorders**

Follow-up: 7 months later

- No substance use (either alcohol or cocaine)
- Energy improves during 2 months of testosterone
- However:
  - complains of feeling depressed, hopeless, anhedonic
  - increased isolation
  - poor appetite, sleep remained disturbed
  - hopeless and mild suicidal thoughts
  - difficulties with memory and concentration persist

- **How reliable are the traditional signs and symptoms of depression in people with HIV?**

- **What symptoms should be given more emphasis?**

Depression in HIV: diagnostic criteria

SOMATIC SYMPTOMS (of depression)

- Poor appetite or changes in weight
- Loss of energy and fatigue
- Psychomotor retardation
- Insomnia
- Diminished ability to think or to concentrate

ENDICOTT'S SUBSTITUTIVE CRITERIA

- Tearfulness or depressed appearance
- Social withdrawal, decreased talkativeness
- Brooding, self-pity, pessimism
- Lack of reactivity, cannot be cheered up

Endicott J: Measurement of depression in patients with cancer. Cancer 1984;53:2243–8

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- **Anxiety subscale: 7 (cut-off score = 10)**
- **Depression subscale: 17 (cut-off score = 10)**

New diagnosis: Major depression

- **The psychiatrist recommends an antidepressant and psychotherapy**

Which antidepressant?

1. Paroxetine
2. Mirtazapine
3. Fluoxetine
4. Sertraline
5. Citalopram
6. Escitalopram
7. Venlafaxine
8. Duloxetine
9. Bupropion
10. Tricyclics

Follow-up: 2 months later

- **Citalopram 20 mg once daily has improved depression, concentration and memory**
- **Final diagnoses:**
  - **Alcohol and cocaine use disorder**
  - **Hypogonadism**
  - **Major depression**

Follow-up: 2 years later

- Mr M arrives very late to his appointment – unusual for him
- He looks unkempt
- He seems distracted
- New complaints:
  - Difficulty concentrating at work
  - Has to re-read documents over several times
  - Fatigues easily when doing mental work

Differential diagnosis

- **Alcohol?: No**
- **Cocaine?: No**
- **Depression?: No**
- **Testosterone?: Normal**
- **Liver function tests, thyroid and HIV tests?: No changes**
- **Then?**

What would your next consideration be for this patient?

1. Increase antidepressant medication
2. Refer patient for further psychiatric testing
3. Request drug screening to confirm patient reports
4. Other?

Plan for Mr M: Treatment

- ARV that cross the blood-brain barrier
- Ensure adherence
- Avoid alcohol, drugs, sedating medications
- Stimulants: methylphenidate
- Environmental interventions
- Rehabilitation
- Family, work, friends
- Support groups, education

Summary

- **Psychiatric problems are common among patients with HIV infection and increasingly recognized in clinical practice**
  - **previous psychiatric illness**
  - **medical comorbidities**
  - **medication side effects**
  - **direct effect of HIV on the brain (HAND)**