CASE THREE

Short case number: 3_5_3
Category: Mental health and human behaviour
Discipline: Psychiatry
Setting: General Practice
Topic: Mood disorders –depression

Case
Hugh Momutt, aged 68 years presents with lethargy, depressed mood, loss of interest in his family and friends. His family have asked him to attend you for advice. They are worried that since retiring he seems to have lost interest in everything, but this has been much worse in the past few weeks, and he is now staying in bed, not showering and has lost 5kg in weight. They advise that when he was in his twenties, Hugh had a depressive illness, was hospitalised and was on antidepressant medication for 5 years. However, he then improved and has not had any therapy for at least a decade.

1. What is the differential diagnosis? What further history and examination would you take in this case?
2. What are the pointers that may suggest an organic cause to a depressive illness?
3. What investigations would you order for Hugh?

Following your assessment you diagnose Hugh with Melancholic depression.

4. What are the different depression subtypes?
5. What is melancholic depression? What are the common symptoms (list)?

Hugh reports he has lost 5kg in the last 3 weeks because he has no appetite, and he feels like everything is hopeless and overwhelming. He feels guilty about being a burden on his family but he denies any suicidal ideation. It is very difficult to engage him in any discussion around treatment, he says he will do what his family tells him to, but he really does not think anything will work. Hugh lives in a semi-rural area on a small farm.

6. Outline the key elements in management and include both psychological and pharmacological treatment modalities for this man. Remember to consider where he should best receive treatment, who should be involved in providing his care, and to consider the risks.

Suggested reading:

- Hare D L, Toukhsati S R, Johansson P, Jaarsma T. (2013). Depression and cardiovascular disease: a clinical review. European Heart Journal, 35(21), 1365-1372. Full text online
- Rayner L, Price A, Evans A, Valsraj K, Higginson IJ, Hotopf, M. (2010). Antidepressants for depression in physically ill people. *Cochrane Database of Systematic Reviews* (3).

- Wilhelm K (2009). Making sense of the complex depressed patient I. Medical illness, including effects of drugs and alcohol. Medicine Today, 10 (4), 36-46.
- Wilhelm K (2009). Making sense of the complex depressed patient 3. Melancholic and bipolar depression. Medicine Today 10 (6) 22-34.
- Malhi et al (2015), Mood disorders: Clinical practice guidelines and associated resources
- https://www.ranzcp.org/practice-education/guidelines-and-resources-for-practice/mood-disorders-cpg-and-associated-resources
- Colledge NR, Walker BR, Ralston SH, Penman ID, editors. Davidson's Principles and Practice of Medicine. 22nd edition. Edinburgh: Churchill Livingstone; 2014. Chapter 10.

Answers

1. What is the differential diagnosis? What further history and examination would you take in this case?

The key to answering this question is for the student to talk about doing a work-up for a patient with depression at an older age. This will require a comprehensive mental health and physical health assessment that focus on the symptoms and signs of depression but also rule in/ out symptoms and signs of potential differential diagnoses.

Differential Diagnosis includes

- major depressive episode, bipolar disorder
- early dementia, especially frontal lobe / vascular
- cancer, especially lung and pancreas,
- diabetes onset, autoimmune disease, cardiac disease (CCF, AMI), thyroid disorder

Further history and examination:
Complete mental health assessment including:
HPC: More details about this episode, time course, triggers, clarify presence of depressive symptoms, pattern of symptoms (e.g. diurnal mood variation, early morning wakening), look for mood congruent psychotic symptoms, risk to self or others, any physical symptoms (fevers / signs of dehydration/ headache / gait changes / changes to bowel or bladder function).
Past History: Was this like earlier episode? Any episodes of depressed or elevated mood? Substance use? Smoking? Alcohol? Any problems with general health? Consider current and the recent functioning looking for a decline in function.

Mental state examination (MSE)
Specific things to look for on MSE:
Signs of self-neglect
Psychomotor agitation / retardation
Affect – sad / lack of emotion
Poverty of speech or thought
Depressive cognitions – hopelessness / worthlessness/ guilt
Depressive delusions – poverty / nihilism / somatic / hypochondriacal
Cognitive function?

Consider using a rating scale such as the Hamilton Depression rating scale (HAM-D), Montgomery-Asberg Depression Rating Scale (MADRS), Geriatric Depression Scale (GDS).

Physical examination

Risk: Passive death wish / thoughts of harm to self / suicidal ideation / plans or intent to end life
Risk of self-neglect

Collateral history
What has family noticed? About personality changes, sleep, strange ideas/preoccupations? Concentration and memory?

2. What are the pointers that may suggest an organic cause to a depressive illness?

Symptoms, signs or investigations suggesting other illness (e.g., chest pain, dyspnoea, headache, jaundice, urinary symptoms), fatigue and weight loss that continues or persists despite treatment. Any neurological symptoms. Severe cognitive changes. A sudden onset of symptoms. Recent change in medications.

3. What investigations would you order for Hugh?

Investigations need to be ordered in response to the history and physical exam, the need to rule in / out possible organic causes for presentation and to assess risk of dehydration / malnutrition due to poor oral intake.
(See list in table below from RANZCP guidelines - https://www.ranzcp.org/practice-education/guidelines-and-resources-for-practice/mood-disorders-cpg-and-associated-resources
.
In addition to these, in this case add magnesium / calcium / phosphate, B12 / folate. Also neuroimaging is likely to be beneficial in this case – urgency will be determined by results of history / physical exam.

Table 9. Physical examination and investigation of patients presenting with mood disorders.

EXAMINATION*	
	Rationale
	Bradycardia may occur in hypothyroid states Sinus tachycardia may reflect anxiety.
Body mass index and waist circumference	To assess current general health status and gauge subsequent psychotropic associated weight gain.
Signs of possible self-harm	Old scars (including tracheostomy scars)
Endocrine disorders	Goiter, hyper/hypo-thyroid features, Cushingoid features
Respiratory disorders	Observed sleep apnoea/snoring, restless leg syndrome, COPD features, wheeze/asthma, lung malignancy.
Neurological disorders	Parkinsonism, motor/sensory deficits, cerebrovascular disease features, motor tics.
Organ insufficiency	Jaundice, AV fistula for dialysis, dyspnoea, peripheral oedema
INVESTIGATION*	
	Rationale
Full Blood Examination (FBE)	Some psychotropics are associated with neutropenia and agranulocytosis.[a] Neutropenia has been particularly associated with clozapine and carbamazepine, and reported with olanzapine.[b] Macrocytosis is seen in heavy drinkers. (20–30% in the community and in 50–70% hospital patients.)
Urea and Electrolytes (U&Es) and Liver function tests (LFTs)	Psychotropics may alter LFTs and U&Es Psychotropic pharmacokinetics may be influenced by otherwise clinically silent renal or hepatic impairments. Possibility of hyponatremia especially in elderly patients on multiple medications. Isolated escalation of gamma-glutamyltransferase (GGT) suggests alcohol misuse.[c] GGT is elevated in 30–50% heavy drinkers in the community and in 50–80% hospital patients.
Electrocardiogram (ECG)	Some psychotropics are associated with a prolonged QTc interval.[d] QTc prolongation has been particularly associated with TCAs, citalopram at high doses, ziprasidone, paliperidone, and lurasidone.[e,f,g,h]
Thyroid function tests (TFTs) and thyroid auto-antibodies	Thyroid dysfunction can cause changes in mood. Thyroid dysfunction can be induced by treatments such as lithium.[i]
Inflammatory markers and microbial serology	Needs assessment on a case by case basis
Vitamin levels	There is an association between vitamin deficiencies and mood disorders. Vitamin B12, folate and Vitamin D, studies are relevant in some cases.[j,k]
Sexually Transmitted Disease (STD) testing	If history suggests impulsive unprotected behaviour with sexual activity
Pregnancy testing (beta HCG)	If history suggests impulsive unprotected sexual activity. Necessary prior to starting psychotropics in any woman that is potentially pregnant.
Urine and Blood Drug Screening	Screen for benzodiazepines, opioids, psychostimulants, cannabis, hallucinogens.

*Dodd et al. (2011).

4. What are the different depression subtypes?

Depression can be classified in several ways, including by symptoms, by severity or by suspected cause.
DSM-5 classifies in this way:
Major Depressive Episode - Mild / Moderate / Severe / with Psychotic Features.
Other specifiers for MDE with anxious distress / mixed features / melancholic features / psychotic features / catatonia /peri partum onset
Major Depression Disorder – Recurrent
Persistent Depressive Disorder (previously Dysthymia)

Classification by symptoms: melancholic depression, psychotic depression, non-melancholic depression, atypical depression.

Classification by course: bipolar or unipolar, recurrent brief depression, seasonal affective disorder. Depression can also be categorised as primary and secondary (e.g., to medical illness, medications, substance use, tobacco and alcohol dependence, pregnancy, cognitive decline).

5. What is melancholic depression? What are the common symptoms (list)?

From DSM-5

A. One of the following is present during the most severe period of the current episode:
1. Loss of pleasure in all, or almost all, activities.
2. Lack of reactivity to usually pleasurable stimuli (does not feel much better, even temporarily, when something good happens).

B. Three (or more) of the following:

1. A distinct quality of depressed mood characterized by profound despondency, despair, and/or moroseness or by so-called empty mood.
2. Depression that is regularly worse in the morning.
3. Early-morning awakening (i.e., at least 2 hours before usual awakening).
4. Marked psychomotor agitation or retardation.
5. Significant anorexia or weight loss.
6. Excessive or inappropriate guilt.

Note: The specifier “with melancholic features” is applied if these features are present at the most severe stage of the episode. There is a near-complete absence of the capacity for pleasure, not merely a diminution. A guideline for evaluating the lack of reactivity of mood is that even highly desired events are not associated with marked brightening of mood. Either mood does not brighten at all, or it brightens only partially (e.g., up to 20%–40% of normal for only minutes at a time). The “distinct quality” of mood that is characteristic of the “with melancholic features” specifier is experienced as qualitatively different from that during a non-melancholic depressive episode. A depressed mood that is described as merely more severe, longer lasting, or present without a reason is not considered distinct in quality. Psychomotor changes are nearly always present and are observable by others. Melancholic features exhibit only a modest tendency to repeat across episodes in the same individual. They are more frequent in inpatients, as opposed to outpatients; are less likely to occur in milder than in more severe major depressive episodes; and are more likely to occur in those with psychotic features.

6. Outline the key elements in management and include both psychological and pharmacological treatment modalities for this man. Remember to consider where he should best receive treatment, who should be involved in providing his care, and to consider the risks.

Student should present a biopsychosocial management plan for Hugh looking at immediate care, then short and longer term management plan.

Immediate management: Risk assessment and setting of treatment:
Likely to need inpatient treatment due to severity of depression and poor oral intake. If you are in a GP setting you will need to refer him to the local Emergency department. He will a psychiatrist to manage his care. Aim for voluntary admission but may need to consider the use of the Mental Health Act due to risk to physical health. Initially stabilise physical health – may need to be admitted under a medical team initially if unstable. Consider IV fluids, monitor for refeeding syndrome. Important to engage with family during this time.

Short term management:
Melancholic depression usually requires a dual acting antidepressant SNRI, TCA), and may also require an antipsychotic agent, particularly (but not only) if there are psychotic features or if there is a poor response to the antidepressant alone. Lithium can also be used as an augmentation agent in severe unipolar depression, check renal function. During the admission it will be important to monitor sleep, mood, oral intake, functioning / self-care.

If the patients fails to recover or is depressed to the point of being immobilised, not eating and drinking, psychotic or wracked with suicidal preoccupations, then ECT should be considered. The Mental Health Act may also be required in these circumstances.

Psychotherapy is not useful in the acute phase, but behavioural activation may be useful. The family will need considerable support and should be consulted about patient's progress. Psychoeducation is important in the short term.

Longer term management:
On recovery, further psychoeducation is important plus identification of organic (particularly any cerebrovascular risk factors), personality and contextual vulnerability factors, also to look at his early symptoms and signs, as a 'relapse signature', if he were to have any further episodes. Also, to 'debrief with him and his family' about what is generally a traumatic experience.
For Hugh, this would include consideration of retirement as a transition phase in his life, consideration of his general health, lifestyle and whether he has any psychological issues that require attention and consider psychological therapy. It would be important to see him every few months and look for any decrease in cognitive function.