

ONCOLOGY

- A 55-year-old man has presented to his GP complaining of several episodes of spontaneous facial blushing. In addition, he mentions he has had several episodes of watery diarrhoea. On examination of the cardiovascular system, giant v waves are noted on observation of the jugular venous pressure. In addition, a pansystolic murmur is heard in the lower sternal edge on inspiration. Examination of the gastrointestinal system reveals an enlarged, irregular, non-tender liver edge. What is the most likely diagnosis?

 - Superior vena cava obstruction
 - Carcinoid tumour
 - Carcinoid syndrome
 - Phaeochromocytoma
 - Conn's syndrome
- A 62-year-old woman with metastatic breast cancer, including bone metastases, presents to sudden onset back pain and difficulty walking. An urgent MRI of the spine confirms cord compression at the level of L1–L2. What is the most appropriate initial management?

 - Surgical decompression of spinal cord
 - Dexamethasone
 - Radiotherapy
 - Chemotherapy
 - Physiotherapy
- A 60-year-old man with metastatic adenocarcinoma of the lung, who has finished two cycles of palliative cisplatin/pemetrexed chemotherapy, presents with a 2-day history of fever and lethargy. On examination, he is pyrexial with a temperature of 38.8°C. What is the most appropriate next step?

 - Blood cultures
 - Urgent full blood count
 - Urgent chest x-ray
 - Start empirical broad spectrum antibiotics
 - Prescribe paracetamol
- A 50-year-old woman with T2N2M1 squamous cell carcinoma of the tongue has been electively admitted for her third cycle of palliative cisplatin/5-fluorouracil chemotherapy. She has known metastasis to the T3 vertebrae and the ribs. Since her last cycle of chemotherapy she has been very lethargic and constipated. Upon checking her bloods you discover that her corrected calcium levels are 15 Mg %. The most appropriate treatment is:

 - Administering the chemotherapy
 - Intravenous rehydration and pamidronate
 - Calcitonin
 - Delaying the chemotherapy and advising the patient to minimize calcium intake
 - Intravenous rehydration alone
- A 50-year-old woman presents to complaining of excessive lethargy. In addition, she mentions that she has been constipated. On examination, there are clinical features of dehydration. Blood tests have revealed a corrected calcium of 16mg %. Her chest x-ray shows bilateral streaky shadowing throughout both lung fields. She is given 3 L of saline in 24 hours after admission. The following day her blood tests are repeated and her corrected calcium level is now 14mg%. Results of parathyroid hormone levels and thyroid function tests are still awaited. What is the most appropriate management?

 - Intravenous saline rehydration
 - Intravenous saline rehydration and pamidronate
 - Pamidronate
 - Calcitonin
 - Intravenous saline rehydration plus calcitonin
- A 74-year-old man with T2N0M0 squamous cell carcinoma of the tongue is currently undergoing hyper-fractionated radiotherapy with curative intent. He has had no previous surgery. This type of therapy is best described by which of the following terms:

 - Adjuvant
 - Neoadjuvant
 - Palliative
 - Radical
 - Brachytherapy
- A 57-year-old woman with adenocarcinoma of the sigmoid colon with liver metastasis is attending for cycle six of her palliative FOLFOX chemotherapy. Which tumour marker can be measured in the blood test to indicate the effect of the chemotherapy?

 - α -fetoprotein (AFP)
 - β -human chorionic gonadotrophin (β -hCG)
 - CA 19-9
 - CA 125
 - CEA
- A 22-year-old man with testicular cancer has undergone an inguinal orchidectomy. Histology has confirmed teratoma. A preoperative CT staging scan has shown involvement of the para-aortic lymph nodes. Which of the following treatments is the best post-operative option?

 - Chemotherapy (bleomycin, etoposide, cisplatin)
 - Lymph node dissection
 - Radiotherapy to affected lymph nodes
 - Chemo-radiotherapy
 - Surveillance using tumour markers.
- A 60-year-old man has presented to the gastroenterology outpatient clinic with a four-month history of progressive dysphagia. The patient reports a weight loss of 9 kg in the same time period. He has suffered from gastro-oesophageal reflux disease for the past 10 years. At endoscopy, a 5 cm malignant stricture is seen at the lower end of the oesophagus and biopsies are taken. Histological analysis is most likely to reveal:

 - Squamous cell carcinoma
 - Small cell carcinoma
 - Adenocarcinoma
 - Leiomyoma
 - Gastrointestinal stromal tumours
- A 70-year-old man presents to his GP having noticed a slowly enlarging 'spot' on his left cheek. On examination, there is a well-circumscribed, skin-coloured nodular lesion on the left cheek with some overlying small blood vessels visible. The most likely diagnosis of this lesion is:

 - Basal cell carcinoma
 - Squamous cell carcinoma
 - Nodular malignant melanoma
 - Superficial spreading malignant melanoma
 - Basal cell papilloma

1292 11. A 62-year-old electrician has presented to a sudden decline in his exercise tolerance. He mentions that he can only walk 5 yards and that he has had a persistent cough with some haemoptysis over the previous month. A chest x-ray confirms a right-sided pleural effusion, which is then drained. A repeat x-ray shows a round shadow in the right perihilar region. Subsequent bronchoscopy and biopsy confirms small cell carcinoma. Which of the following statements is most true about small cell carcinomas of the lung?

- a. They are sensitive to chemotherapy
- b. Two-year survival of disease confined to the lung is 50 per cent
- c. They are more common than non-small cell lung carcinomas
- d. They are not associated with cigarette smoking
- e. They most commonly arise from the periphery of the lung

12. A 68-year-old man presents to his GP complaining of increasing shortness of breath. He has noticed deterioration in his exercise tolerance, particularly while mowing the lawn. He has a past history of squamous cell carcinoma of the lung for which he finished radiotherapy treatment a year ago. On examination, there are fine inspiratory crackles in the right lung base. The most likely cause of his shortness of breath is:

- a. Recurrence of the cancer
- b. Pneumonitis
- c. Pulmonary oedema
- d. Pulmonary fibrosis
- e. Chronic obstructive pulmonary disease (COPD)

13. A 39-year-old woman has undergone a wide local excision for a 0.5 cm ductal carcinoma of her right breast. Sentinel node biopsy, histology and staging scans have confirmed the disease as T1N0M0. Histology has confirmed the cancer as oestrogen and progesterone receptor positive. Which of the following statements is most accurate regarding this female's treatment options?

- a. She should receive radiotherapy
- b. She is not suitable for radiotherapy
- c. She is not suitable for tamoxifen therapy
- d. She requires no further treatment
- e. She should be considered for cetuximab therapy

14. A 51-year-old man with a recent diagnosis of pancreatic carcinoma with metastases to the liver and omentum is about to commence gemcitabine chemotherapy. Prior to his first cycle he mentions that he is getting increasing severe abdominal pains. He is currently taking paracetamol for this, which eases the pain but is now becoming less effective. The most appropriate analgesia for this patient is:

- a. Fentanyl patch
- b. Oral morphine sulphate solution as required
- c. Morphine sulphate tablets
- d. Codeine phosphate
- e. Codeine phosphate plus paracetamol

15. A 48-year-old woman with a recent diagnosis of metastatic cancer of unknown primary, including metastasis to the sacral and thoracic spine, is currently being treated for lower back pain with regular paracetamol, diclofenac and oral morphine solution. She is receiving additional oral morphine solution rescue doses for her breakthrough pain. On review of her drug chart, she has received 60 mg of oral morphine solution over the past 24 hours. Which of the following is the most appropriate escalation for this patient's pain management?

- a. 30 mg of morphine sulphate tablets, twice daily with 10 mg oral morphine solution, as required
- b. 5–10 mg of oral morphine solution, as required
- c. 10 mg of oral morphine solution, six times a day

- d. 30 mg of morphine sulphate tablets, twice daily
- e. 18 mg of diamorphine via a continuous subcutaneous syringe driver

16. A 58-year-old male with known small cell lung cancer presents to a 5-day history of severe headache and recurrent vomiting. He has recently commenced chemotherapy for small cell carcinoma of the lung. On examination of the visual fields, there is a left inferior homonymous quadrantanopia.

The most important diagnostic investigation is:

- a. Urea and electrolyte blood tests
- b. CT head
- c. CT thorax, abdomen and pelvis
- d. Lumbar puncture
- e. Chest x-ray

17. A 64-year-old man presents to following a collapse. He describes a blackout, subsequently regaining consciousness when on the floor. He presently feels well and describes no other symptoms. However, he mentions that he has unintentionally lost some weight over the past few months. There is no past medical history. Blood tests reveal a haemoglobin level of 9 g/dL with a mean cell volume of 71 fL. The most appropriate next investigation of this patient is:

- a. Flexible sigmoidoscopy
- b. Endoscopy
- c. Colonoscopy
- d. Endoscopy and colonoscopy
- e. Profile of tumour markers

18. A 57-year-old man with metastatic adenocarcinoma of the lung is attending for cycle three of his palliative pemetrexed/cisplatin chemotherapy. During his cisplatin infusion, he noticed his arm becoming painful, swollen and red at the cannula site. The most likely cause of this is:

- a. Cellulitis
- b. Venous thrombosis
- c. Extravasation of chemotherapy
- d. Adverse drug reaction
- e. Normal chemotherapy reaction

19. A 55-year-old woman with metastatic pancreatic cancer attends the oncology clinic prior to her second cycle of chemotherapy. She tolerated her first cycle well but her husband mentions that there have been occasions where she has been confused. Her urea and electrolyte blood tests reveal a serum sodium of 116 mmol/L. All other results were within the normal range. The chemotherapy is delayed and a urine specimen is sent off. This reveals a urine osmolality of 620 mmol/kg. The most likely cause of the hyponatraemia is:

- a. Water overload
- b. Diabetes insipidus
- c. Addison's disease
- d. Syndrome of inappropriate anti-diuretic hormone (ADH)
- e. Renal impairment

20. A 55-year-old woman with metastatic pancreatic cancer attends the oncology clinic prior to her second cycle of chemotherapy. She tolerated her first cycle well, but her husband mentions that there have been occasions where she has been confused. Her urea and electrolytes on this occasion reveal a serum sodium of 116 mmol/L. All other results were within the normal range. The chemotherapy is delayed and a urine specimen is sent off. This confirms a diagnosis of syndrome of inappropriate ADH (SIADH). The most appropriate treatment is:

- a. Intravenous infusion of 5 per cent dextrose
- b. Intravenous infusion of normal saline

- c. Intravenous infusion of hypertonic saline
d. Desmopressin
e. Fluid restriction to 1 L per day
21. A 60-year-old man with metastatic adenocarcinoma of the lung, who has finished two cycles of palliative cisplatin/pemetrexed chemotherapy, presents with a 2-day history of nausea and vomiting. On examination, he is tachycardic with a blood pressure of 105/60 mmHg. Blood tests show a urea of 15 mmol/L and a creatinine of 180 mmol/L. Results from a week earlier showed a urea of 4.0 mmol/L and a creatinine of 90 mmol/L. All other blood tests and arterial blood gas results are within the normal range. What is the most appropriate initial management of this patient?
- a. Oral fluid rehydration
b. Intravenous fluid rehydration
c. Urgent renal ultrasound scan
d. Haemodialysis
e. CT scan of kidneys, ureter and bladder
22. A 65-year-old woman who is currently receiving chemotherapy for acute myeloid leukaemia is found on blood testing to have urea of 10.1 mmol/L, creatinine of 190 mol/L, potassium of 6.1 mmol/L, phosphate of 8.5 mg/dL and corrected calcium of 2.00 mmol/L. The patient is asymptomatic. Her electrolyte levels were normal prior to the start of treatment. What is the most likely cause of this electrolyte disturbance?
- a. Tumourlysis syndrome
b. Hypovolaemia
c. Haemolyticuraemic syndrome
d. Neutropenic sepsis
e. Disease progression
23. A 56-year-old man with gastric cancer presents to his GP 1293 complaining of a lump in his belly button. On examination, there is a palpable nodule at his umbilicus. This sign is referred to as:
- a. Sister Mary Joseph nodule
b. Krukenberg tumour
c. Acanthosis nigricans
d. Peutz–Jeghers syndrome
e. Paget’s disease
24. A 62-year-old man with known metastatic small cell carcinoma of the lung has presented to sudden onset shortness of breath and arm and hand swelling. On examination, his face appears plethoric and Pemberton’s sign is positive. What is the most likely diagnosis?
- a. Pancoast’s tumour
b. Horner’s syndrome
c. Superior vena cava obstruction
d. Facial oedema
e. Malignant pleural effusion

Oncology - Answers

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| 1. c | 6. d | 11. a | 16. b | 21. b |
| 2. b | 7. e | 12. d | 17. d | 22. a |
| 3. a | 8. a | 13. b | 18. c | 23. a |
| 4. b | 9. c | 14. e | 19. d | 24. c |
| 5. a | 10. a | 15. a | 20. e | |