
*Eosinophilic oesophagitis*

Average score 2.67/5

This was a good example of an increasingly commonly diagnosed condition which pathologists in general histopathological practice often diagnose. Most candidates recognised the entity and many candidates added significant value to their answers. Approximately one quarter of candidates failed in this question by either failing to appreciate the specific diagnosis of eosinophilic oesophagitis (and resorting to the imprecise diagnosis of oesophagitis not otherwise specified), or by over-interpreting the cooked meat (a food bolus) as evidence of perforation or a myoinvasive process.

Pass marks were awarded to candidates who made a confident diagnosis of eosinophilic oesophagitis or offered a differential diagnosis strongly favouring eosinophilic oesophagitis. Candidates could add value to their marks by demonstrating a higher level of understanding of clinical and pathological features of this condition. Borderline fails were awarded to candidates offering diagnoses of oesophagitis “not otherwise specified” or favouring diagnoses of other forms of oesophagitis. Clear fails were awarded to candidates making malignant diagnoses or misinterpreting the cooked meat in the food bolus as evidence of perforation or invasion.


Appendectomy.

*Low grade appendiceal mucinous neoplasm and grade 1 well differentiated neuroendocrine tumour*

Average score 2.68/5

This case included dual pathology: to gain a pass mark candidate had to identify both processes. Both lesions were obvious in all the slides used in the exam. Dual diagnoses such as in this case are not uncommon in general histopathological practice, and it is important that pathologists do
not blind themselves to additional diagnoses, having diagnosed one condition with confidence. More than half of the candidates correctly diagnosed both elements and many added considerable value to their answers.

To gain a basic pass mark candidates had to identify both the low grade appendiceal mucinous neoplasm and the neuroendocrine tumour. Candidates who failed to identify one or other element but offered otherwise safe reports were awarded borderline fails. Candidates who failed to identify either lesion or who offered confident diagnosis of other forms of malignancy were given clear fails.

Candidates able to add value by demonstrating more knowledge of either lesion were awarded extra marks. Examples of added value would include use of appropriate immunohistochemistry to confirm the neuroendocrine tumour, knowledge of grading systems for neuroendocrine tumours or knowledge of the consequences of perforation of low grade appendiceal mucinous neoplasms and the need for pathologists to look for evidence of perforation.


*Granulomatous dermatitis; features favour sarcoid*

Average score 2.72/5

This case was chosen to assess the ability of candidates to assess a granulomatous process in a skin biopsy. Over three quarters of candidates gained pass marks and many added significant value to their answers.

For a pass mark, candidates were expected to offer a good description of the histological features and indicate a diagnosis of a non-caseating granulomatous process with a diagnosis of sarcoid or a differential diagnosis favouring sarcoid. Candidates could add value by suggesting appropriate special stains to exclude infective aetiology and/or considering further clinical tests which might point to a diagnosis of sarcoidosis.

Borderline fails were given to candidates making a diagnosis of non-necrotising granulomatous process without favouring a diagnosis of sarcoidosis or favouring other granulomatous disorders such as leprosy or granuloma annulare. The most common misdiagnoses were
xanthogranuloma and juvenile xanthogranuloma. Clear fails were awarded to a few candidates who did not recognise that this was a granulomatous process.

4. **Female, age 56. Abnormal CT scan. Left partial nephrectomy.**

*Translocation associated renal cell carcinoma*

Average score 2.64/5

This case was chosen to consider the ability of candidates to assess a renal cell neoplasm with unusual histology and to consider appropriate differential diagnoses. The tumour comprised cells with voluminous cytoplasm, with a mixture of clear and eosinophilic cytoplasm: this feature should have raised the possibility of a translocation associated renal cell carcinoma, or at least prompted candidates to consider a differential diagnosis. Candidates were assessed for their ability to raise appropriate differential diagnoses and consider a plan of action.

This case was marked leniently and only a few candidates failed, generally by inappropriate diagnosis of renal oncocytoma. Well-considered differential diagnoses gained pass marks and approximately ¼ of candidates added significant value to their answers by correctly mentioning the possibility of translocation associated renal cell carcinoma and offering useful comment as to additional testing to confirm and making appropriate mention of the prognostic significance of this diagnosis.

5. **Male, age 69. Past history of multifocal grade 3 urothelial carcinomas. Previous transurethral tumour resections and BCG treatment. Radical cystoprostatectomy. Abnormal bladder mucosa sampled.**

*Nephrogenic metaplasia and post-operative spindle cell nodule.*

Average score 2.51/5

This section included two lesions. There was florid nephrogenic metaplasia on the mucosal surface and there was also an incidental post-operative spindle cell nodule. More than two thirds of candidates gained pass marks in this question. Candidates were given a pass mark for a correctly appreciating the benign nature of the lesions and giving adequate descriptions of the processes. Candidates who added value gave clear descriptions of both lesions, used appropriate terminology and suggested appropriate further investigation and/or sought clinicopathological correlation.
Candidates with borderline fails generally offered poor descriptions or used vague terminology. A small proportion of candidates failed by inappropriate diagnosis of malignancy.

6. **Female, age 73.** Lesion involving diaphragm and pericardium. Local resection.
*Epithelioid malignant mesothelioma.*
Average score 2.74/5
This case was chosen to consider the ability of candidates to assess an epithelioid neoplasm involving pleura. Most candidate answered this question well and many added considerable value to their answers. Over two thirds of candidates passed this question.

For a pass mark, candidates had to appreciate the problem and indicate that this was an epithelioid neoplasm affecting pleura with an important differential diagnosis, notably adenocarcinoma vs mesothelioma, and to indicate the need for appropriate further investigation. Candidates could add value to their answers by indicating appropriate immunohistochemistry to consider this differential, and seeking additional clinical and radiological history.

Borderline fails were awarded to candidates who did not realise that there was an important differential diagnosis to resolve and who arrived at a confident diagnosis of either malignant mesothelioma or adenocarcinoma without considering the alternative possibility. Candidates who relied too heavily on morphology and who did not recognise the need for additional immunohistochemistry were awarded borderline marks. A few candidates incorrectly diagnosed other forms of malignancy such as melanoma and angiosarcoma: these answers were awarded clear fails.

7. **Female, age 61.** Large bilateral ovarian masses. Hysterectomy and bilateral salpingo-oophorectomy. Block from ovary.
*Colorectal carcinoma, metastatic to ovary.*
Average score 2.8/5
This case was chosen to consider a common problem in gynaecological pathology and the ability of candidates to consider options other than primary gynaecological malignancy. The clinical history provided a helpful clue by indicating the presence of bilateral ovarian masses and this should have alerted candidates to the possibility of metastatic malignancy. Slightly more than half of the candidate passed this question and many of those who did pass added considerable
value to their answers. A significant number of candidates failed this question, largely by not considering the possibility of metastatic disease and failing to indicate the need for immunohistochemistry: this oversight would have significant clinical consequences.

To gain a pass mark candidates were required to offer a differential diagnosis of primary ovarian neoplasia vs metastatic gastrointestinal carcinoma. Additional marks were given to candidates suggesting appropriate immunohistochemistry, recognising the significance of the clinical history (bilaterality), seeking additional past medical history and recognising other histological features favouring metastatic colorectal carcinoma.

Candidates who failed in this question had not considered the possibility of metastatic disease and had not suggested appropriate immunohistochemistry.


*Solitary fibrous tumour*

*Average score 2.4/5*

In the opinion of the examiners this was a good example of a solitary fibrous tumour, albeit in an unusual location. Slightly more than half of the candidates passed this question, which tested the ability of candidates to recognise characteristic histology in an unusual location and to suggest appropriate further investigations.

Pass marks were awarded to candidates giving appropriate descriptions of the histology and making a diagnosis of solitary fibrous tumour or at least offering a differential diagnosis favouring solitary fibrous tumour. Additional marks were awarded to candidates indicating appropriate immunohistochemistry to confirm and/or making appropriate comments as to the likely behaviour of the tumour.

Borderline fail marks were given to candidates offering less confident differential diagnoses including but not favouring solitary fibrous tumour, or offering other benign diagnosis. A common misdiagnosis was angiofibroma. A few candidates made inappropriate diagnoses of high-grade malignancy and were awarded clear fails.

*Lobular carcinoma of breast.*

Average score 2.62/5

This case was chosen to consider the ability of candidates to make a common diagnosis of a subtle neoplasm in the context of a needle core biopsy. This is a common problem for pathologists in general histopathological practice, especially in breast screening programs. This question was answered well by the great majority of candidates, with only occasional candidates failing.

Pass marks were awarded to candidates giving adequate descriptions and arriving at a diagnosis of lobular carcinoma. Additional marks were given to candidates indicating awareness of appropriate immunochemistry to confirm and help in onward clinical management and/or indicating the clinical significance of the diagnosis. A few candidates were uncertain as to the diagnosis or suggested other forms of breast malignancy and were given borderline fails. A small number of candidates did not identify the lesion and made confident benign diagnoses.


*Moderately differentiated hepatocellular carcinoma.*

Average score 2.74/5

This was a straightforward case with a helpful history of haemochromatosis. The histology was characteristic and this presented most candidates with no problems. Nearly all candidates passed this question.

To gain a pass mark candidates had to indicate a diagnosis of hepatocellular carcinoma and give a reasonable description of the case. Many candidates added considerable value by suggesting appropriate immunohistochemistry to confirm, making appropriate clinicopathological correlations and giving good morphological descriptions. Only a few candidates failed in this question, by either lacking confidence and giving lists of differential diagnosis (including but not favouring hepatocellular carcinoma), or by offering inappropriate benign diagnoses.

*Combined CIN3 and high grade CGIN.*

Average score 2.5/5

This case required candidates to make a double diagnosis of CIN3 and CGIN. This case was chosen to consider the ability of candidates to recognise two important diagnoses in a loop biopsy of cervix: this is a relatively frequent occurrence in general histopathological practice. Both lesions were well represented in all the sections used in the exam and both lesions were characteristic hence should not have caused problems to candidates. Just over two thirds of candidates passed this question.

Pass marks were awarded to candidates observing both high-grade CIN and CGIN. Candidates could add value by noting that the CGIN was high-grade in type, commenting on margins, commenting on the need for cytohistological correlation and noting the need for MDTM discussion. Borderline fails were given to candidates failing to observe either CIN or CGIN. Clear fails were awarded to candidates making inappropriate diagnoses of invasive malignancy.

12. Female, age 64. Breast cancer screening programme. Wide local excision of breast and sentinel lymph node biopsy. Sentinel lymph node histology.

*B cell mature small lymphocytic lymphoma/ CLL.*

Average score 2.3/5

This case was chosen to assess the ability of candidates to make a relatively straightforward diagnosis in an unusual clinical context. Pathologists in general histopathological practice will occasionally encounter unexpected diagnoses in routine contexts, such as lymph node biopsies taken as part of the staging of breast cancer. In this case a lymph node sampled as part of the staging breast cancer was effaced by mature B cell lymphoma. The histology was characteristic and would have presented most candidates with few problems had this been a biopsy taken in the investigation of unexplained lymphadenopathy. Only approximately half of the candidates achieved pass marks in this case.

Pass marks were awarded to candidates giving a good description of the lymph node and favouring a diagnosis of low grade non-Hodgkin’s lymphoma whilst at the same time, making a confident statement as to the absence of metastatic breast carcinoma (an equally important observation). Some candidates gave exceptionally good answers and suggested appropriate
investigations to characterise the lymphoma, as well as making a clear statement as to the absence of metastatic breast carcinoma. Many candidates were given borderline pass marks, largely through equivocation as to the diagnosis of lymphoma or failing to observe the absence of metastatic carcinoma. Clear fails were given to candidates erroneously diagnosing metastatic breast carcinoma or making confident benign diagnosis.


*Pseudomembranous colitis.*

Average score 2.58/5

This case was chosen to assess the ability of candidates to react appropriately to an unexpected histological finding in a resection specimen. This patient underwent a sigmoid colectomy for colovesical fistula (assumed secondary to diverticular disease) and the resected specimen unexpectedly showed features of pseudomembranous colitis: this is an important additional diagnosis which would necessitate urgent clinical action. The slide showed characteristic features of pseudomembranous colitis.

Candidates were given a pass mark for correct diagnosis of pseudomembranous colitis or a differential diagnosis favouring pseudomembranous colitis. Additional marks were given to candidates recognising the clinical urgency of the situation and the need to inform clinicians of this important and unexpected diagnosis. Most candidates passed this question but very few could add much value to their answers.

Additional marks were also awarded to candidates seeking clinical correlation, indicating an understanding of aetiology of pseudomembranous colitis or suggesting appropriate further microbiological investigation. Borderline fail marks were given to candidates making confident diagnoses of ischaemic colitis without considering pseudomembranous colitis. Clear fails were given to candidates diagnosing inflammatory bowel disease or offering malignant diagnoses.

14. Female, age 91. Subcutaneous swelling, right lower leg. Excised.

*Angiosarcoma.*

Average score 2.42/5

This case was included in the exam to assess the ability of candidates to identify a reasonably characteristic angiosarcoma and to suggest additional investigations. Approximately two thirds of candidates passed this question.
To gain a pass mark candidates were expected to offer a competent description of the lesion and arrive at a diagnosis of angiosarcoma or a differential diagnosis favouring angiosarcoma. Additional marks were awarded to candidates offering more complete and competent descriptions, suggesting appropriate immunohistochemistry or suggesting possible aetiology. Borderline fails were awarded to candidates lacking confidence by offering extensive differential diagnoses without favouring angiosarcoma. Borderline fails were also given to candidates who favoured a diagnosis of Kaposi’s sarcoma. Clear fails were given to candidates offering confident diagnoses of benign, reactive or inflammatory disorders.

15. Female, age 48. Large skin lesion on leg. Excised

_Malignant melanoma in vertical growth phase._

Average score 2.32/5

This was a difficult melanocytic lesion which required careful consideration. Just over half of the candidates sitting the exam arrived at the correct diagnosis and many of these candidates added significant value to their answers.

Pass marks were awarded to candidates noting the presence of atypical melanocytes in the dermis and at the dermo-epidermal interface and arriving at a diagnosis of malignant melanoma or a differential diagnosis favouring melanoma. Additional marks were given to candidates making appropriate staging observations and noting other important items from the melanoma dataset, or indicating appropriate immunohistochemical investigations. Borderline fails were given to candidates offering equivocal diagnoses and clear fails to candidates indicating a clear preference for benign diagnoses.


_Pulmonary lymphangioleiomyomatoisis._

Average score 2.46/5

This case was chosen as a good example of an uncommon lesion which well-prepared candidates should have been aware of. The history was helpful and typical.

The marking scheme was lenient and candidates offering a good description of the lesion and noting the correct diagnosis in a differential diagnosis were given a pass mark. Candidates offering a more confident diagnosis of lymphangioleiomyomatoisis were given additional marks, and further marks were given to candidates able to suggest appropriate immunohistochemistry
and/or indicating an understanding of the likely long-term outcome of the condition. Slightly over half of the candidates sitting the exam gained pass marks on this question. Fail marks were given to candidates making inappropriate diagnoses of malignancy or failing to observe and describe the lesion.

17. Female, age 31. Recent onset subcutaneous lump left axillary tail. Excision biopsy.

*Axillary breast tissue showing lactational change (lactating adenoma).*

Average score 2.47/5

This straightforward case was chosen to assess the ability of candidates to think laterally and consider histological findings in the appropriate clinical context. The history was helpful. Approximately two thirds of candidates passed this question, and many added value to their answers.

To gain a pass mark candidates had to appreciate the presence of breast tissue showing lactational change, and think laterally to realise the likely presence of axillary breast tissue. Additional marks were awarded to candidates seeking additional clinical history, suggesting appropriate immunohistochemistry to confirm the presence of axillary breast tissue or offering helpful advice regarding no further resection being required.

Borderline fails were given to candidates preferring a diagnosis of a benign skin appendage tumour. Clear fails were given to candidates indicating that this was a malignant lesion.


*Autoimmune sialadenitis (vs lymphoma).*

Average score 2.45/5

This was an intentionally difficult case which considered the need for caution in interpretation of lymphoid infiltrates in the context of autoimmune salivary gland disease. The case was marked leniently and over two thirds of candidates gained pass marks.

To pass candidates had to give an adequate description of the lesion and arrive at a differential diagnosis of myoepithelial sialadenitis vs lymphoma, and acknowledge that confident diagnosis is not possible on H&E section alone. Additional marks were given to candidates able to suggest a reasonable plan of further investigation to consider the important differential diagnoses, and
investigate the possibility of lymphoma. Additional marks were also given to candidates who sought additional clinical history and correlation with clinical behaviour and imaging. Borderline fails were given to candidates making a diagnosis of sialadenitis/myoepithelial sialadenitis without considering the need to consider lymphoma. Clear fails were given to a few candidates committing to a confident diagnosis of lymphoma based on H&E alone.

19. Case withdrawn from exam at time of marking


*Cutaneous herpes simplex virus infection.*

Average score 2.59/5

This was a straightforward case which aimed to assess the ability of candidates to assess skin biopsies in the context of an immunocompromised patient. All the sections used in the exam included keratinocytes with characteristic viral inclusions. This case was answered well by most candidates, and around 75% passed this question.

Pass marks were given for an adequate description and a correct diagnosis of herpes simplex virus infection. Additional marks were given to candidates seeking clinicopathological correlation, and appreciating the lesion in the clinical correlation of an immunocompromised patient. Candidates were also rewarded for indicating the need to telephone this important result to the clinician, and to candidates suggesting appropriate immunohistochemical, serological and molecular investigations.

Borderline fails were awarded to answers indicating viral aetiology without specifying HSV. Clear fails were given for diagnoses of vesiculobullous dermatoses, GVHD or malignancy.