JOURNAL-BASED LEARNING EXERCISES

IBMS CPD

Each article's contents should be read, researched and understood, and you should then come to a decision on each question. The pass mark is 17 out of 20 questions answered correctly. JBL exercises may be completed at any time until the published deadline date. Please select your choice of correct answers and complete the exercises online at: **www.ibms.org/cpd/jbl**

DEADLINE WEDNESDAY 1 AUGUST 2018

The utility of peripheral blood smear review for identifying specimens for flow cytometric immunophenotyping.

Craig FE. *Int J Lab Hematol* 2017; **39** (Suppl 1): 41–6. Assessment No 050418

01	Expression of CD56 on monocytes is a finding specific to CMML.
02	T-cell LGLL is usually CD16+.
03	Flow cytometric immunophenotyping of peripheral blood has a well-established role in monitoring CD4-positive T cells in the setting of HIV infection.
04	Adult T-cell leukaemia/lymphoma can be recognised when there are peripheral blood lymphoid cells with a "flower cell" appearance due to marked nuclear indentations.
05	Peripheral blood smear review occasionally suggests a differential diagnosis but more frequently establishes a definitive diagnosis.
06	Absolute eosinophilia usually represents a reactive process.
07	Post-transplant lymphocytosis usually has a CD8+, CD57+ phenotype and is associated with persistent neutropenia.
08	Overt absolute lymphocytosis is most frequently composed of small, immature lymphoid cells.
09	Flow cytometric studies are superior to morphologic assessment when screening for hairy cell leukaemia.
10	The T-cell phenotype CD2+, CD3+, CD5+ CD7(-), CD4+, CD8(-) is unique to Sezary syndrome.
11	CD19+, CD20+ (dim), CD5+, CD10(-), CD23+, FMC-7(-), CD200+, slg+ (dim) is an immunophenotype by flow cytometry characteristic of CLL.
12	Lymphocyte-variant hypereosinophilia represents the combination of an abnormal T-cell population and reactive eosinophilia.
13	For a specimen that is diagnostic of CLL in a patient with overt lymphocytosis, peripheral blood FISH studies can detect the presence of 13q deletion but not 11q deletion.
14	Plasma cell leukaemia can be defined by circulating neoplastic plasma cells representing >10% of total WBC.
15	Medical indications for peripheral blood flow cytometric immunophenotypic analysis of haematolymphoid neoplasia were summarised by a consensus panel in 2006.
16	Peripheral blood blasts can be seen in neoplastic but not reactive disorders.
17	Flow cytometric studies for myelodysplastic syndrome are usually performed on peripheral blood.
18	Increased NK cells have been described at diagnosis in CML.
19	The immunophenotype in both mantle cell lymphoma and follicular lymphoma is usually CD10(-).
20	Plasma cells can be identified with flow cytometry through expression of bright CD138 and CD38.

Contribution of cervical cytology in the diagnostic work-up of patients with endometrial cancer.

Amkreutz LCM, Pijnenborg JMA, Joosten DWL et al. *Cytopathology* 2018; **29** (1): 63–70. Assessment No 050818

01	Endometrial cancer (EC) has a five-year overall survival rate of 90–95% and a cancer-specific survival rate of 80–85%.
02	Non-endometrioid tumours that arise in endometrial polyps or precancerous lesions in the vicinity of atrophic endometrium account for ±80% of cases.
03	The concordance of preoperative biopsy is moderate for grade 1 tumours, but relatively poor for grades 2 and 3 tumours.
04	Cervical smears were classified as abnormal if there were atypical glandular or malignant endometrial cells present in the preoperative cervical cytology.
05	Secondary outcome was defined as the contribution of abnormal cervical cytology to preoperative histological risk classification.
06	Overall, patients with preoperative abnormal cervical cytology had significantly worse five-year median recurrence-free survival (RFS) and disease-specific survival (DSS), compared to patients with normal cervical cytology.
07	Abnormal cervical cytology was found significantly more often in patients with FIGO stage II (70.6%) versus FIGO stage I (41.5%) disease.
08	Patients included in the study had a mean age of 66.4 years.
09	Preoperative tumour grade was inconclusive in 215 patients included in the study.
10	In 28.1% of patients with preoperative low-grade EC, final histology showed high-grade EC.
11	Twenty-one out of 36 patients with preoperative high-grade EC and normal cervical cytology were diagnosed with high-grade EC on final histology.
12	The overall incidence of abnormal cervical cytology in the study was 50%, which is comparable with numbers reported in the literature (31–54%).
13	In this study, 70.6% of patients with high-grade tumours presented with abnormal cervical cytology.
14	This retrospective cohort study was performed in five hospitals in The Netherlands and included a total of 554 patients.
15	Clinicopathological data were compared to cervical cytology using *t*-tests for continuous variables and χ^2 tests for categorical variables.
16	The authors found abnormal cervical cytology in 85.4% of serous carcinoma cases.
17	Normal cervical cytology was found significantly more often in patients with FIGO stage II versus FIGO stage I disease.
18	Surgery is the secondary treatment for endometrial carcinoma.
19	A total of 101 patients with grade 3 endometrioid carcinoma were identified.
20	Patient age, preoperative histology and serum CA-125 are markers for high-grade EC.

REFLECTIVE LEARNING

01	In what circumstances is flow cytometry a superior diagnostic tool to morphological assessment, and why?	01	What are the advantages and disadvantages of using cervical cytology as a means to identify endometrial carcinoma preoperatively?
02	Create a laboratory diagnostic flow diagram for distinguishing between causes of overt lymphocytosis.	02	Read the article by Izadi-Mood N *et al.* (ref 25) and compare their finding with those from your own laboratory.