Practical Exercise: Diagnosis of Genital Infections using Microscopy

Objectives: After completing this exercise you should be able to recognise the key microscopic features required to diagnose genital infections.

Instructions: view the embedded digital images (4 cases), and based on both your observations and the associated clinical history, make appropriate comments relevant to a possible diagnosis.

Case 1: 25-year-old female complaining of pelvic pain.

Model answer 1: No abnormalities detected. Lactobacilli and epithelial cells are present.
Case 2: 32-year-old female complaining of vaginal itch and discharge

Model answer 2: Yeast cells (probably Candida albicans) are present. This is consistent with Candidiasis (thrush).
Case 3: 24-year-old male presenting with a purulent urethral discharge.

Model answer 3: Numerous white cells are present with many containing intracellular Gram-negative diplococci. This is consistent with a diagnosis of Gonorrhoea.
Case 4: A 25-year-old pregnant female complaining of discharge.

Model answer 4: Lactobacilli are absent, but numerous small Gram-negative bacilli are present, as are “clue cells”. This is consistent with a diagnosis of Bacterial Vaginosis.