

Reduced resistance to infection

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Reduced resistance to infection has several causes, particularly those that impair the inflammatory response. Host response is weakened by malnutrition associated with a low or high body mass index. Metabolic diseases such as diabetes mellitus, uraemia and jaundice, disseminated malignancy and acquired immunodeficiency syndrome (AIDS) are other contributors to infection and a poor healing response, as are iatrogenic causes including the immunosuppression caused by radiotherapy, chemotherapy and drugs such as steroids and methotrexate - (Figures 5.4 and 5.5). When enteral feeding is suspended during the perioperative period, and particularly with underlying disease such as cancer, immunosuppression, shock or sepsis, bacteria (particularly aerobic Gram-negative bacilli) tend to colonise the normally sterile upper gastrointestinal tract. They may then translocate Figure 5.4 Figure 5.5 to the mesenteric nodes and cause the release of endotoxins (lipopolysaccharide in bacterial cell walls), which can be one cause of a harmful systemic inflammatory response through the excessive release of proinflammatory cytokines and activation of macrophages (Figure 5.6). In the circumstances reduced host resistance to infection, microorganisms that are not normally pathogenic may start to behave as pathogens. This is known as opportunistic infection. Opportunistic infection with fungi is an example, particularly when prolonged and changing antibiotic regimes have been used.

Major wound infection and delayed healing presenting as a faecal fistula in a patient with Crohn's disease on steroid treatment. Delayed healing relating to infection in a patient on high-dose steroids.

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