Streptococcus pneumoniae Detected on a Peripheral Blood Smear

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A 72-year-old man with a high fever, purpura and vital signs indicating shock was transported to the emergency unit of our hospital. A complete blood count showed pancytopenia, and the laboratory data were indicative of disseminated intravascular coagulation. These findings suggested severe sepsis. A peripheral blood smear treated with May-Giemsa staining exhibited blue diplococci with capsules (Picture A and B, arrows), which prompted a diagnosis of severe sepsis caused by Streptococcus pneumoniae. The patient received intensive care; however, he died two hours after hospitalization. An autopsy showed splenic atrophy and bilateral adrenal hemorrhaging, suggesting Waterhouse-Friderichsen syndrome. Streptococcus pneumoniae was confirmed in a blood culture the following day. As Sabatino et al. noted, carefully observing peripheral blood smears treated with May-Giemsa staining may be helpful for making the diagnosis of severe sepsis caused by Streptococcus pneumoniae (1).

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Reference