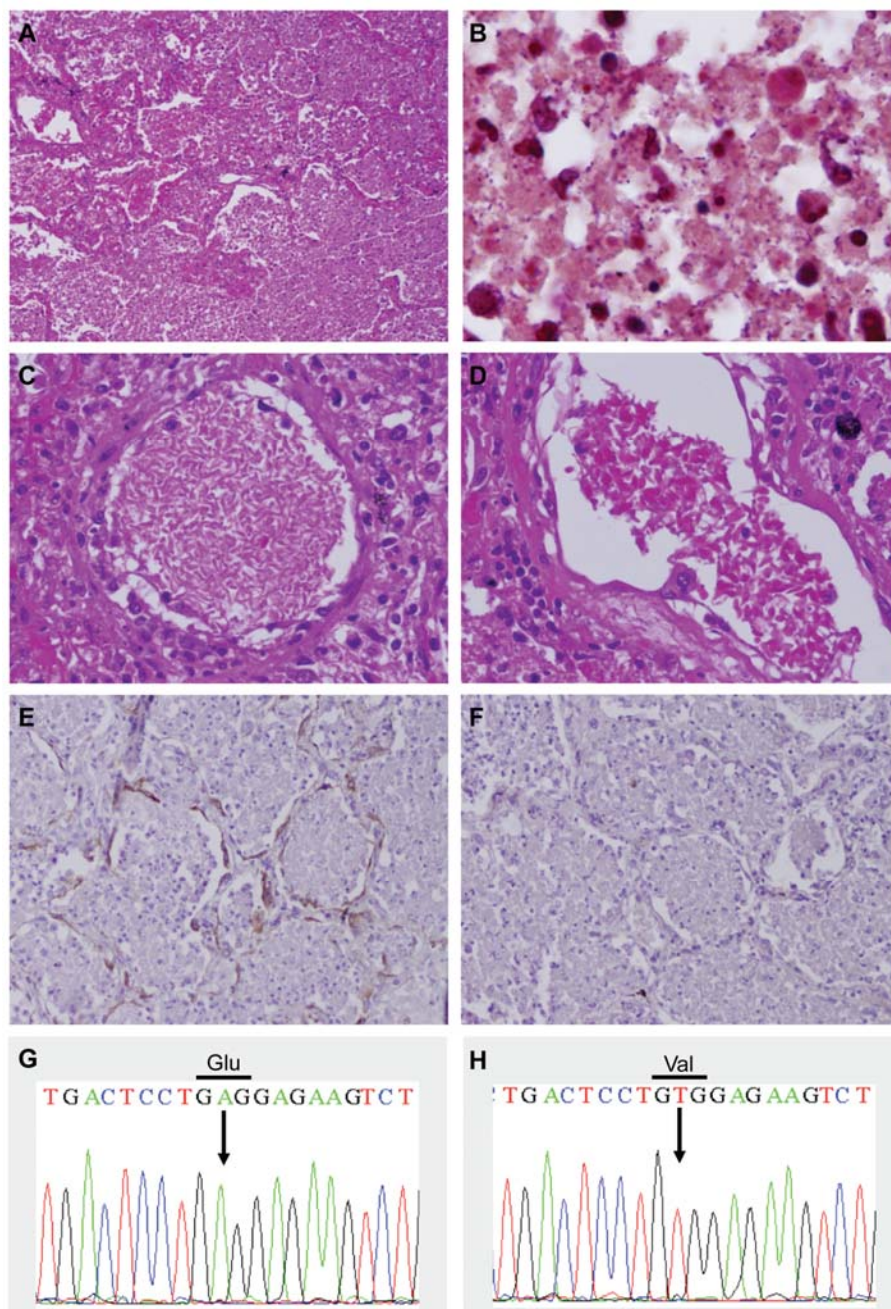


Fatal 1918 Pneumonia Case Complicated by Erythrocyte Sickling

Technical Appendix



Technical Appendix Figure. Histopathologic changes associated with a 1918 type II pneumococcal pneumonia case and DNA sequence of a portion of the hemoglobin beta gene. A) Hematoxylin and eosin (H&E)-stained lung showing severe acute bacterial pneumonia with tissue necrosis (original magnification $\times 40$). B) Brown and Hopps tissue Gram stained- lung showing abundant gram-positive cocci consistent with pneumococci (original magnification $\times 1,000$). C) Photomicrograph of H&E-stained section showing abundant erythrocyte sickling in a venule (original magnification $\times 200$). D) Photomicrograph of H&E-stained section showing abundant erythrocyte sickling in a venule (original magnification $\times 400$). E) Immunohistochemical stain for cytokeratins in a section of lung. Cytokeratin is red-brown on a hematoxylin-stained background (original magnification $\times 100$). F) Section of lung (original magnification $\times 100$) with immunohistochemical stain for influenza. G) DNA sequence of cloned DNA from a PCR product showing the sequence GAG at position 7 of the hemoglobin beta gene. H) DNA sequence of another PCR product clone showing the hemoglobin S mutation GTG at position 7 of the hemoglobin beta gene.