Invasive Aspergillosis

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Figure 1. Computed tomography scan of the chest showing air-crescent sign (large arrow), tree-in-bud opacities (arrowheads), and communication of the cavitary lesion with the right upper lobe bronchus (small arrow).

A 42-year-old man with acute lymphoblastic leukemia presented for consolidation chemotherapy. He had received induction chemotherapy one month previously, which had caused four weeks of neutropenia. On admission, he reported 1.5 weeks of a non-productive cough and night sweats, without fevers or chills. A chest radiograph revealed a cavitary right upper lobe lesion. Computed tomography scan of the chest showed consolidation in the right upper and middle lobes associated with central crescentic lucency (“air-crescent sign”; Fig. 1, large arrow), tree-in-bud opacities (Fig. 1, arrowheads), and communication of the cavitary lesion with the right upper lobe bronchus (Fig. 1, small arrow). Subsequent bronchoalveolar lavage polymerase chain reaction testing was positive for *Aspergillus*. The patient was treated with voriconazole and right upper and middle lobe resection. Gross pathology of the resected lung revealed a branch of the pulmonary artery abutting the

Figure 2. Gross pathology of resected lung showing the pulmonary artery abutting the cavity wall (forceps) and adjacent necrotic tissue (arrow).

cavity wall (Fig. 2, forceps), as well as necrotic tissue (Fig. 2, arrow). In invasive pulmonary aspergillosis (IPA), proximity to a great vessel is a relative indication for surgery.¹ The prognosis of IPA is poor, with a mortality rate of 30–90 %. However, surgical resection may lower mortality, with one study showing a 30-day mortality of 10 %.² Our patient recovered without recurrence of fungal disease.

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