

# RIGHT MIDDLE LOBE HEMORRHAGIC INFARCTION AFTER SWAN GANZ CATHETER PLACEMENT

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**Background:** pulmonary artery (PA) rupture after Swan-Ganz catheter placement is a rare and serious complication which has an estimated mortality rate of 40-50%. Death usually occurs for massive hemoptysis or pleural effusion with rapid hemorrhagic shock. Here, we present a case of sudden onset of right middle lobe hemorrhagic infarction after Swan-Ganz catheter placement, with fatal outcome.

## Case presentation

After retracting a malfunctioning Swan-Ganz catheter, an ICU physician noted fresh blood in the tracheal tube, quickly followed by hypotension and cardiac arrest. Chest ultrasound showed a huge right pleural effusion, therefore a drainage system was positioned with huge loss of fresh blood and rapid return of spontaneous circulation. A left sided double lumen tube was also inserted to exclude the affected lung, with bronoscopic evidence of right system blood clotting secretions. Chest X ray revealed a right middle lobe consolidation with massive pleural effusion (fig. 1)

The patient was then transferred to have a tomographic scan which showed active bleeding from a pulmonary artery branch for the middle lobe and complete consolidation of the right middle lobe (fig. 2)

During the exam the patient suffered a further cardiac arrest with massive right pleural hemorrhage from the drainage system; all resuscitation attempts were ineffective and the patient died. Autopsy revealed an hemorrhagic infarction of right middle lobe without macroscopic lesion of the pulmonary artery.

**Conclusion:** iatrogenic PA rupture is a serious and life-threatening complication of Swan-Ganz catheter placement that must be considered in case of sudden decrease of artery pressure with massive hemoptysis and pleural effusion. Only surgical reconstruction or lobectomy and percutaneous embolization can stop the bleeding, but in case of massive hemorrhage the patient could die before any effective treatment.

