

**THE AIR THAT COULD KILL:
A CASE REPORT OF A SYSTEMIC AIR EMBOLISM POST SINGLE PORT LAPAROSCOPIC CHOLECYSTECTOMY and
INTRAOPERATIVE ENDOSCOPIC RETROGRADE CHOLANGIOPANCREATOGRAPHY**

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| Significance: | ERCP is a commonly performed procedure used for both diagnostic and therapeutic purposes. Rare complications such as air embolism can occur which can be fatal and difficult to detect. Up to date only 26 cases of post procedural air embolism was reported. | |
| Clinical Presentation | The patient presented with a one-week history of tea colored urine associated with intermittent crampy epigastric pain. Patient was admitted and initial ERCP done revealed no stones. Eventually patient underwent laparoscopic cholecystectomy with intraoperative cholangiogram under orotracheal general anesthesia followed by intraoperative ERCP. After the intraoperative ERCP, upon change of the position of the patient from prone to supine the vital signs became unstable where blood pressure was unappreciable on cardiac monitor, no end tidal CO ₂ was appreciated, no peripheral or neck pulses were palpated and ECG showed sinus bradyarrhythmia. | |
| Management | Laboratory Work-up/Imaging Studies: | MRI of the Upper Abdomen with MRCP: At least four calculi within the distal CBD with dilatation measuring 0.9 cm in diameter. The GB was noted to be distended with innumerable gallstones with at least 2 gallstones in the gallbladder neck. |
| | Diagnosis: | Systemic air embolism post single-port laparoscopic cholecystectomy with IOC and Intraoperative ERCP |
| | Treatment: | The patient was immediately placed on head-down position and aggressive fluid resuscitation was instituted with epinephrine 3ml of 1:200,000 bolus was given. High flow 100% oxygen was administered to maintain adequate oxygenation. |
| Recommendation | It serves to remind clinicians of this potentially lethal complication of endoscopic procedures and laparoscopic surgery which can be prevented with a high index of suspicion and prompt recognition of this complication. | |
| Keywords | Air embolism, ERCP, Laparoscopic Cholecystectomy | |