A Case of Immersion Pulmonary Edema Presents as Acute Coronary Syndrome… Or did it?

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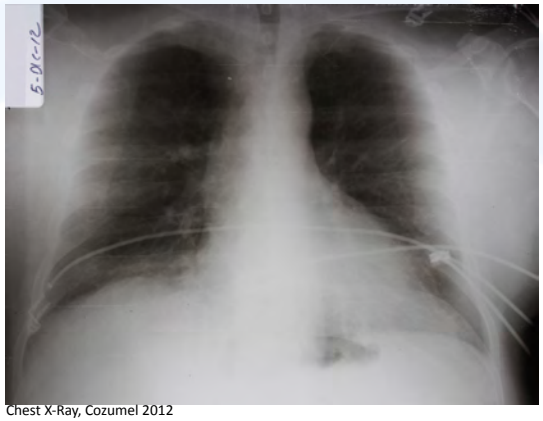
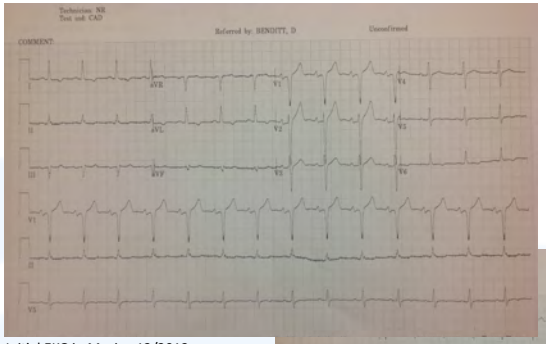
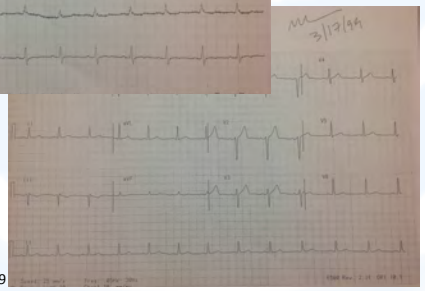


Chest X-Ray, Cozumel 2012



Initial EKG in Mexico 12/2012



Prior EKG - 1999

Introduction:
Immersion pulmonary edema (IPE), once thought to be a rather rare occurrence, is finding its way into the literature more frequently, and recently has reportedly even taken the life of the scuba diver. Because this is thought to be a relatively rare occurrence, it is not well taught to physicians in the community. This knowledge gap can lead to misdiagnosis, potentially putting the patient at risk for unnecessary procedures as well as costing the system significantly.

The case: We present a case of a recreational scuba diver who had an episode of immersion pulmonary edema that was misdiagnosed as acute coronary syndrome. Specifically we relate the cost in terms of risk, time and dollars.
62 y/o male, day 3 of a diving vacation, dove to 65fsw. After 20 minutes, he felt short of breath. Skipping the safety stop, he surfaced, gasping for air. He denied chest pain or tightness. "When I surfaced, I had foam coming out of my mouth". Symptoms improved on Oxygen. He was brought to the ED.

ED Chart:
•"Arrived in no distress",
•VS: Sats: 97% on O2, 87% on RA
•Exam: "cyanotic when O2 removed, rales bilaterally"
•Chest x-ray: "showing data of congestive lungs"
•Troponin: Negative

Pt was flown to Florida.
Cath: severe 3-vessel CAD (chronic w/ extensive collaterals), taken to OR for CABG x5. On POD #3 he developed A-Fib, was chemically cardioverted and discharged on Amiodarone and Pradaxa. Peak Troponin: 0.2.

Aftercare: He routinely reaches 8 mets for 30-60 minutes without symptoms. He has stopped Predaxa due to nosebleeds, and c/o side effects from beta-blockers.

Discussion:
IPE can have a classic history and physical when one asks the right questions. It can, however be misdiagnosed due to inadequate knowledge. While ACS is certainly a more debilitating process than IPE overall, misdiagnosis can be very costly and subject patients to risky therapies. Even when the respiratory aspects were noted, this patient was still tracked into a coronary pathway, medevaced to the US, cathed and started on a six-month rehabilitation routine.
Conclusions: IPE is potentially life-threatening and likely missed by physicians not aware of it. Efforts to close this knowledge gap and improve awareness of IPE are essential to avoiding misdiagnosis and improving outcomes.

Total cost: $494,000

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