

PNEMOMEDIASTINUM IN A DIVER WITHOUT BREATHING COMPRESSED AIR; A CASE REPORT

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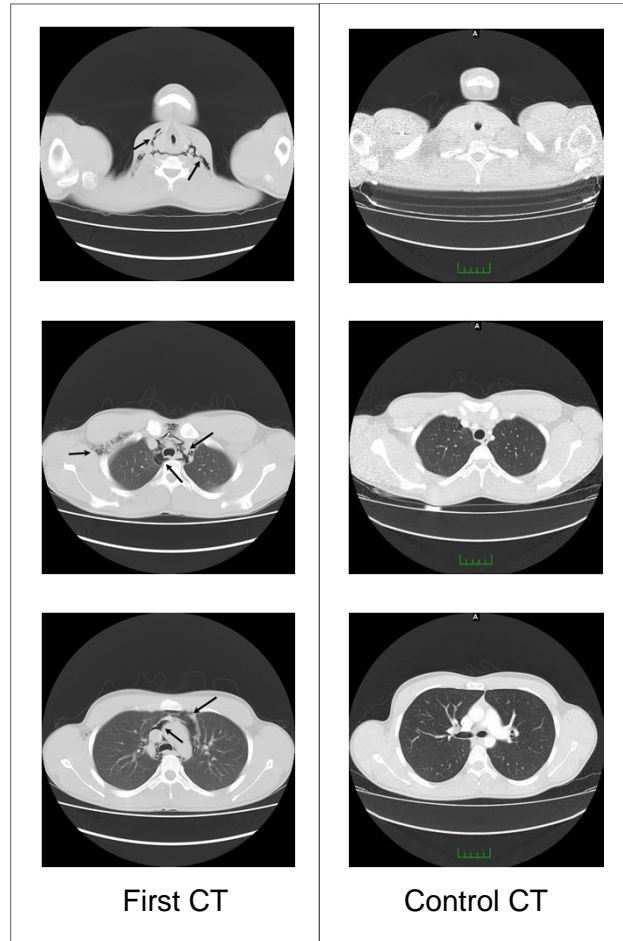
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INTRODUCTION / BACKGROUND:

Pneumomediastinum is defined as free air or gas contained within the mediastinum. The etiology of pneumomediastinum is multifactorial. When it happens in a diver, pulmonary barotrauma is more likely and the air in the mediastinum originated from alveolar space. Pulmonary barotrauma in scuba divers is usually caused by breath-holding on ascent. It can also be seen in a breath-hold diver if a maneuver that increases intrapulmonary pressure, such as lung packing is performed. In this case report the diver neither breathed compressed air nor performed buccal pumping, but had pneumomediastinum during breath-hold diving.

CASE:

An 18 years of breath-hold diver made four dives to 18 m. with 1-2 minutes intervals, each dive lasted 45-60 seconds. The diver did not perform a maneuver such as buccal pumping or lung packing prior to his dives. After about an hour, he made another ten dives to 6-7 meters to release a rob that was stuck underneath a rock at the bottom. He had pain and pressure on his chest in thirty minutes after his last dive. He noticed swelling around his neck that gave crepitation by palpation. He was diagnosed as pneumomediastinum that extended to his neck, by computerized tomography. The symptoms are disappeared in two days and the control tomography 20 days after the incident revealed no pathology.



SUMMARY / CONCLUSIONS:

There are several factors that causes pneumomediastinum such as excessive coughing, sneezing, vomiting, other maneuvers that increases abdominal pressure, trauma, physical efforts and straining. A pneumothorax or pneumomediastinum after a dives usually related with pulmonary overpressure, but the other factors should also be kept in mind. Probably the reason was physical efforts and straining in this case.