

Conclusions: In air space complications such as pneumomediastinum, surgical emphysema and pneumothorax, a proposed treatment algorithm can be applied aiming to improve the outcomes of these complicated COVID-19 patients.

284 Pneumomediastinum in the COVID-19 Era: To Drain or Not to Drain

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Introduction: Although quite uncommon in the pre-COVID-19 era, pneumomediastinum has been increasingly reported in COVID-19 cases complicating the management and prognosis of these patients. The aim of this study is to present the current experience on COVID-19 associated pneumomediastinum and to propose a management algorithm based on the existing literature.

Method: A search strategy focused on electronic databases (Medline, Embase, Google Scholar) was performed. Main search keywords were pneumomediastinum and COVID-19-related keywords. Eligible studies were included without strict limitations on type of study, type of publication, language, or date.

Results: Several reports of pneumomediastinum management in the context of COVID-19 infection have been reported. An initial diagnostic approach with computed tomography scan is recommended for all patients with increased oxygen requirements and suspicious chest X ray. In stable, non-intubated patients, pneumomediastinum can be initially monitored, whereas in the event of progressing air accumulation and cardiorespiratory compromise, a subxiphoid drain alone may preserve the cardiopulmonary reserve. In cases with coexisting pneumothorax and pneumomediastinum, a pleural drain should be prioritised and a subxiphoid drain should be reserved for cases not responding to initial treatment. In surgical emphysema cases, conservative management, especially in non-intubated patients, is suggested, while coexisting pneumothorax as described above. For refractory surgical emphysema cases, subcutaneous drain or subxiphoid drain- in presence of pneumomediastinum- might be required.