CASE IMAGE

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A 13 years old girl referred from Rawalpindi institute of Cardiology, where she was admitted with a diagnosis of pericardial effusion that was exudative and predominantly lymphocytic. Pigtail catheter was inserted for pericardiocentesis and after drainage of 1 liter she was shifted to Pulmonolgy PIMS with suspicion of tuberculous pericardial effusion and she was on ATT with steroid at that time. Cardiology team was consulted here; catheter was removed as no evidence of collection on Echocardiography. Post extubation X-Ray chest showed air shadow in mediastinum. CT scan chest was done that revealed mediastinal widening and proved this shadow to be pneumopericardium, likely traumatic keeping history in view. She had palpable cervical lymph nodes, biopsy was planned.

Pneumopericardium common causes are spontaneous Pneumopericardium without underlying cause in healthy adult or trauma¹. Pneumopericardium after pericardiocentesis is even rarer and has been attributed either to an air leakage to the pericardial drainage system or to a direct pleuro-pericardial communication.²⁻⁴ Latrogenic pneumopericardium requires no specific therapy most of the time but in some patients, life-threatening complications (pericardial tamponade) can occur and require urgent recognition and immediate managements.^{3,4} It is relatively easy to diagnose pneumopericardium by chest radiographs which shows lucent outline separating the pericardium from the heart.³



Figure 1:A) Chest Xray PA view showing air shadow in cardiac area representing pneumopericardium. B) CT scan chest with contrast coronalview showing rim of air around whole heart shadow. C) axial view showing thick rim of air surrounding cardiac shadow. D) sagittal view showing pneumopericardium.

References

- Lee YJ, Jin SW, Jang SH, Jang YS, Lee EK, Kim YJ, Lee MY, Park JC, Rho TH, Kim JH, Hong SJ, Choi KB. A case of spontaneous pneumomediastinum and pneumopericardium in a young adult. Korean J Intern Med. 2001;16(3):205–209.
- Mullens W, Dupont M, De Raedt H. Pneumopericardium after pericardiocentesis. Int J Cardiol. 2007;118(2): e57.
- Choi WH, Hwang YM, Park MY, Lee SJ, Lee HY, Kim SW, Jun BY, Min JS, Shin WS, Lee JM, Koh YS, Jeon HK,

Chung WS, Seung KB. Pneumopericardium as a complication of pericardiocentesis. Korean Circ J. 2011;41(5):280–282.

 Brander L, Ramsay D, Dreier D, Peter M, Graeni R. Continuous left hemidiaphragm sign revisited: a case of spontaneous pneumopericardium and literature review. Heart. 2002;88(4): e5