

Case	(550) The importance of the search for the infection focus
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CASE PRESENTATION

A 12-year-old patient with renal insufficiency, suspicion of thrombotic microangiopathy, fever of 40°C for 48 hours, cough and hip pain in recent days was admitted to our Hospital. Chest X-ray was performed and showed left pleural effusion with bilateral pulmonary consolidations.

The patient did not improve her clinical situation so she underwent chest CT with intravenous contrast, which demonstrated multiple cavitated pulmonary nodules, bilateral pleural effusion and consolidations.

Given these findings, the presence of septic lung embolisms was suspected and staphylococcus aureus was isolated in culture.

Pelvis MRI was performed due to hip pain and in order to search a primary first focus of infection. It showed an extensive osteomyelitis with intraperitoneal, retroperitoneal and intramuscular abscesses.

DISCUSSION

Septic pulmonary embolism (SPE) is characterized by embolization of infected thrombi from a primary infectious site into the venous circulation with implantation into pulmonary vasculature resulting in parenchymal infection (1).

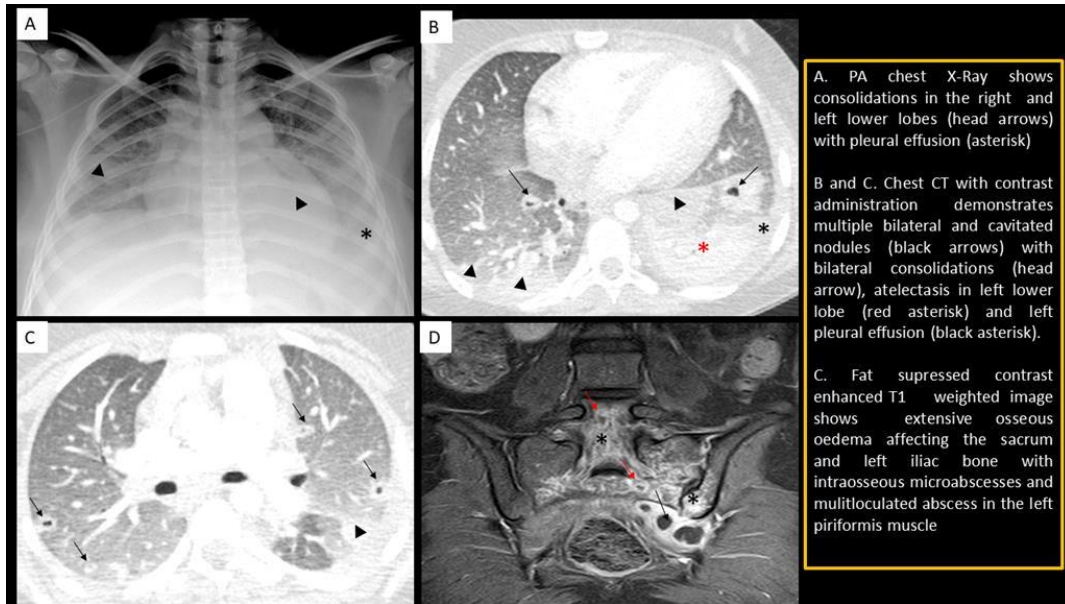
An extrapulmonary site of infection such as the bone, may allow extravasation of a microorganism, most commonly bacterial into the systemic venous circulation. The diagnosis of septic pulmonary embolism is based on characteristic imaging findings which includes the presence of multiple bilateral peripheral nodules, often pleural based, with or without cavitory changes (2).

Therefore, chest CT is essential for the diagnosis which provide the earliest and most easily identifiable indication of systemic embolization of infection. Special focus attention should be paid to staphylococcus aureus as the most likely pathogen which can culminate in septic pulmonary emboli (1).

SPE is caused frequently by a medical device. However, bone and soft tissue infections are reported as the commonest causes of SPE, so they should be taken into account in the search of a primary focus of infection (1).

CONCLUSION

Imaging findings are key for diagnosis of SPE and provide the earliest suspicion of systemic embolization of infection.



BIBLIOGRAPHY

- Goswami U, Brenes J, Punjabi G, LeClaire M, Williams D. Associations and Outcomes of Septic Pulmonary Embolism. *Open Respir Med J* 2014;8:28-33.
- Huang RM, Naidich DP, Lubat E, Schinella R, Garay SM, McCauley DI. Septic pulmonary emboli: CT-radiographic correlation. *AJR Am J Roentgenol* 1989; 153: 41-45.