Breathing in urine: Is that even possible?

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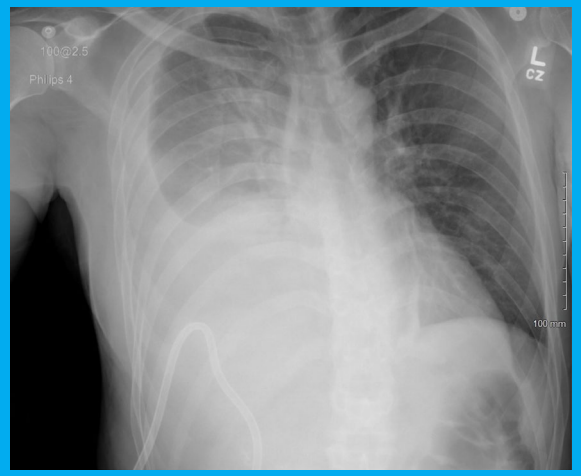
INTRODUCTION:

- We present a case of a urinothorax—a rare cause of pleural effusion that requires careful diagnosis & management.

CASE DESCRIPTION

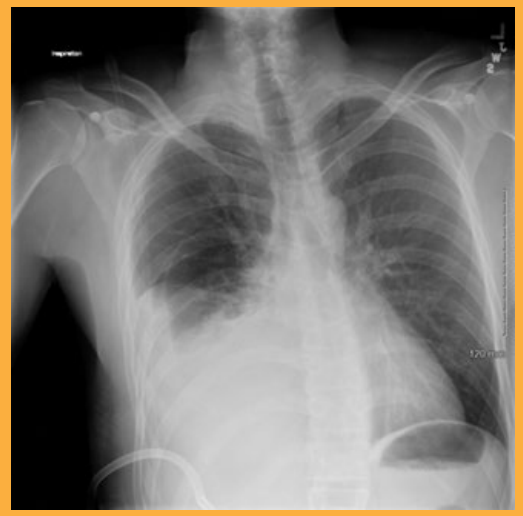
- A 43 y.o. male with past medical history of chronic nephrolithiasis presents for right percutaneous lithotripsy after being found to have multiple renal calculi & hydronephrosis.
- Post-procedure he developed intractable pain, dyspnea, & worsening hypoxia.
- Imaging showed large pleural effusion & thoracentesis was ordered.



Post-nephrolithotripsy imaging showed large pleural effusion.

Thoracentesis Results (1.3 Liters removed)	
pH	7.25
Protein	1.1
LDH	155
Creatinine	6.03

Pleural fluid to serum creatinine ratio = 4.75



Day 2 post thoracentesis: x-ray showed reaccumulated effusion.

Chest tube placed → Effusion resolved several days later → Chest tube removed after pleural creatinine < 1.

SCAN FOR OUR ABSTRACT

DISCUSSION

-Manipulation of GU tract → transdiaphragmatic migration of urine or retroperitoneal-pleural lymphatic connection

-Thoracentesis should be done with fluid studies

-Pleural fluid to serum creatinine ratio > 1.7 is diagnostic

-If pleural fluid analysis is inconclusive, consider renal scintigraphy

CONCLUSION

- Urinothorax should be considered as a differential diagnosis for pleural effusion in the setting of post genitourinary or surgical manipulation.

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