



## IMAGES IN INTENSIVE MEDICINE

### Nutrithorax: an uncommon differential diagnosis of the plankton sign



### Nutritórax: un diagnóstico diferencial poco común del signo del plancton

Isabel Canas-Pérez\*, David Pérez-Torres, Cristina Cuenca-Rubio

Servicio de Medicina Intensiva, Hospital Universitario Río Hortega, Gerencia Regional de Salud de Castilla y León (SACYL), 47012, Valladolid, Spain

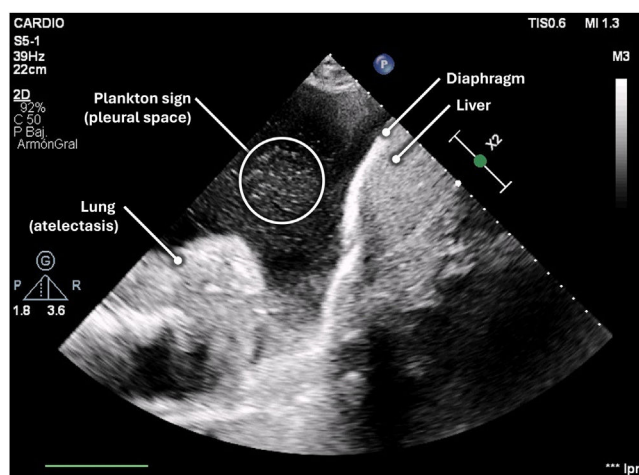


Figure 1

A 77-year-old woman was admitted to the hospital for bowel obstruction. A central line was placed in the right subclavian vein to initiate parenteral nutrition in the setting of a non-operative management strategy. On admission day 4, the patient developed acute respiratory failure, requiring ICU admission. Point-of-care pleural ultrasound revealed a complex, non-septated massive right pleural effusion with swirling, punctiform internal echoes (plankton sign) (Fig. 1, Video 1). A chest

\* Corresponding author.

E-mail addresses: [icanasp@saludcastillayleon.es](mailto:icanasp@saludcastillayleon.es) (I. Canas-Pérez), [dperezts@saludcastillayleon.es](mailto:dperezts@saludcastillayleon.es) (D. Pérez-Torres), [ccuencaru@saludcastillayleon.es](mailto:ccuencaru@saludcastillayleon.es) (C. Cuenca-Rubio).

<https://doi.org/10.1016/j.medin.2024.04.009>

0210-5691/© 2024 Elsevier España, S.L.U. and SEMICYUC. All rights are reserved, including those for text and data mining, AI training, and similar technologies.

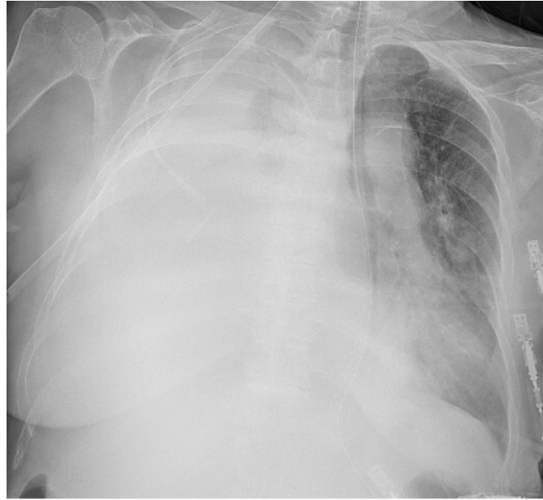


Figure 2



Figure 3

X-ray prior to drainage insertion confirmed the massive effusion (Fig. 2) and revealed displacement of the tip of the central line, compared to the immediate control after its insertion. A thoracostomy catheter was placed, demonstrating a milky-white output from the pleural space (Fig. 3), with high triglyceride (2503 mg/dL), low cholesterol (<20 mg/dL), and high glucose (682 mg/dL) levels, consistent with nutrithorax. Although uncommon, vascular trauma or direct leakage may cause nutrithorax that may be identified with ultrasound.

### Statements and declarations

These images have not been previously published.

### Conflict of interest

On behalf of all authors, the corresponding author states that there is no conflict of interest.

### **Ethics approval**

Informed consent was waived according to local regulations.

### **Financial support**

None.

### **Appendix A. Supplementary data**

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.medin.2024.04.009>.