

A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide, partially overlapping the text.

# 76-year-old female presenting with 1-day history of abdominal pain

Lukas McNaboe, MS3

# CT IV Contrast



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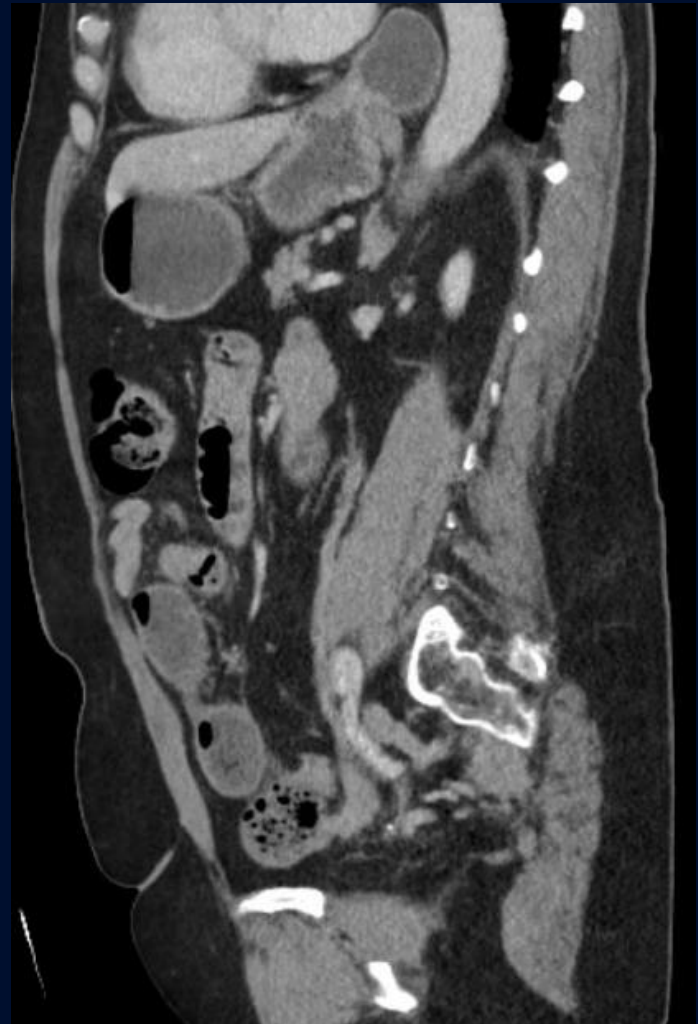




CT Coronal IV Contrast



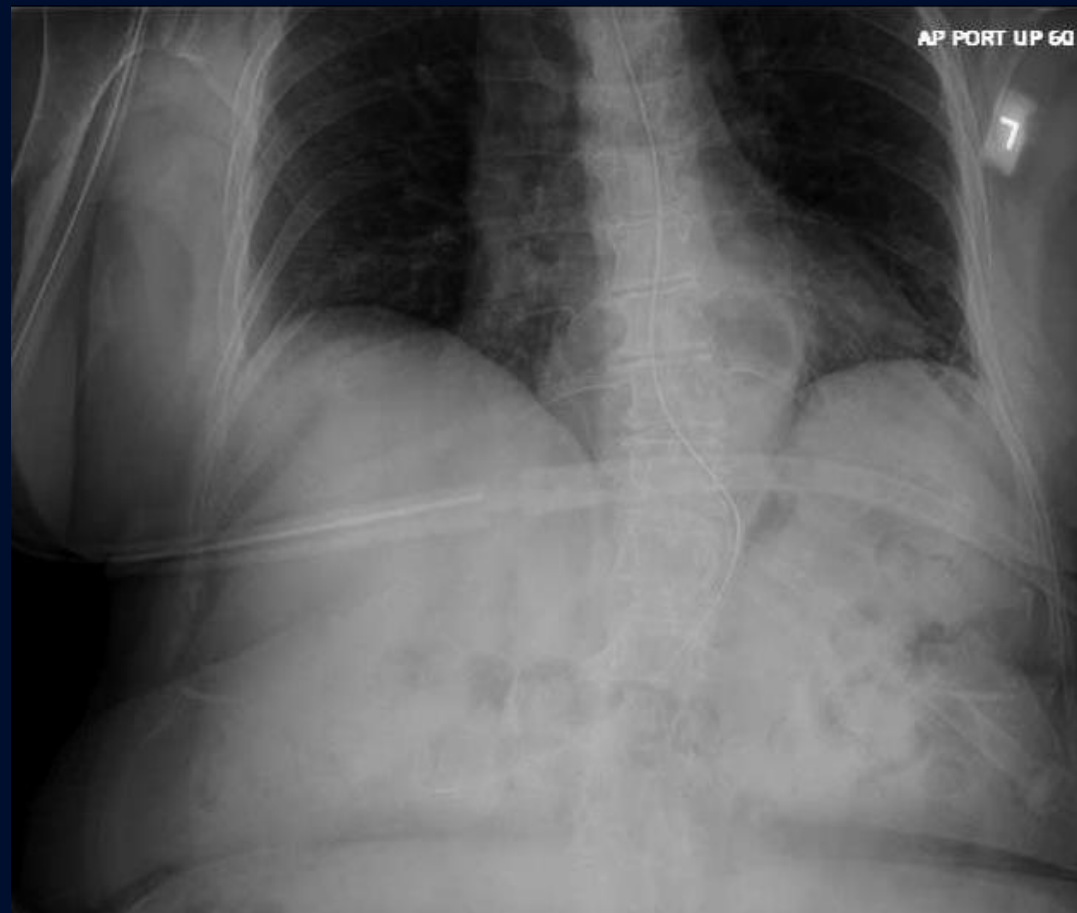
CT Sagittal IV Contrast



6 hr post oral contrast



Abdominal Radiograph





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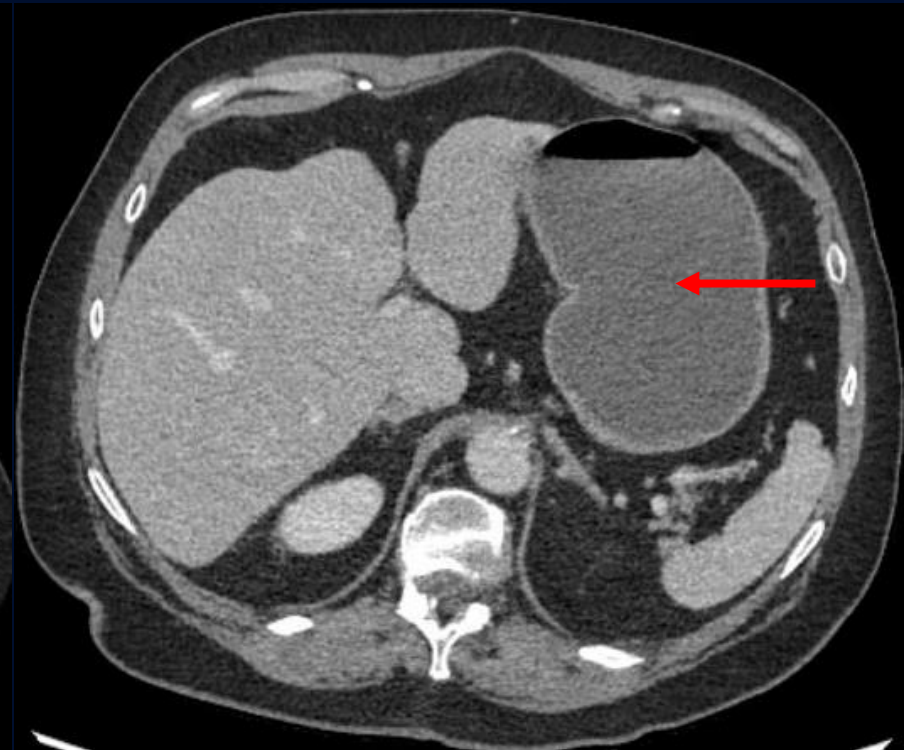
# Small Bowel Obstruction



# CT IV Contrast

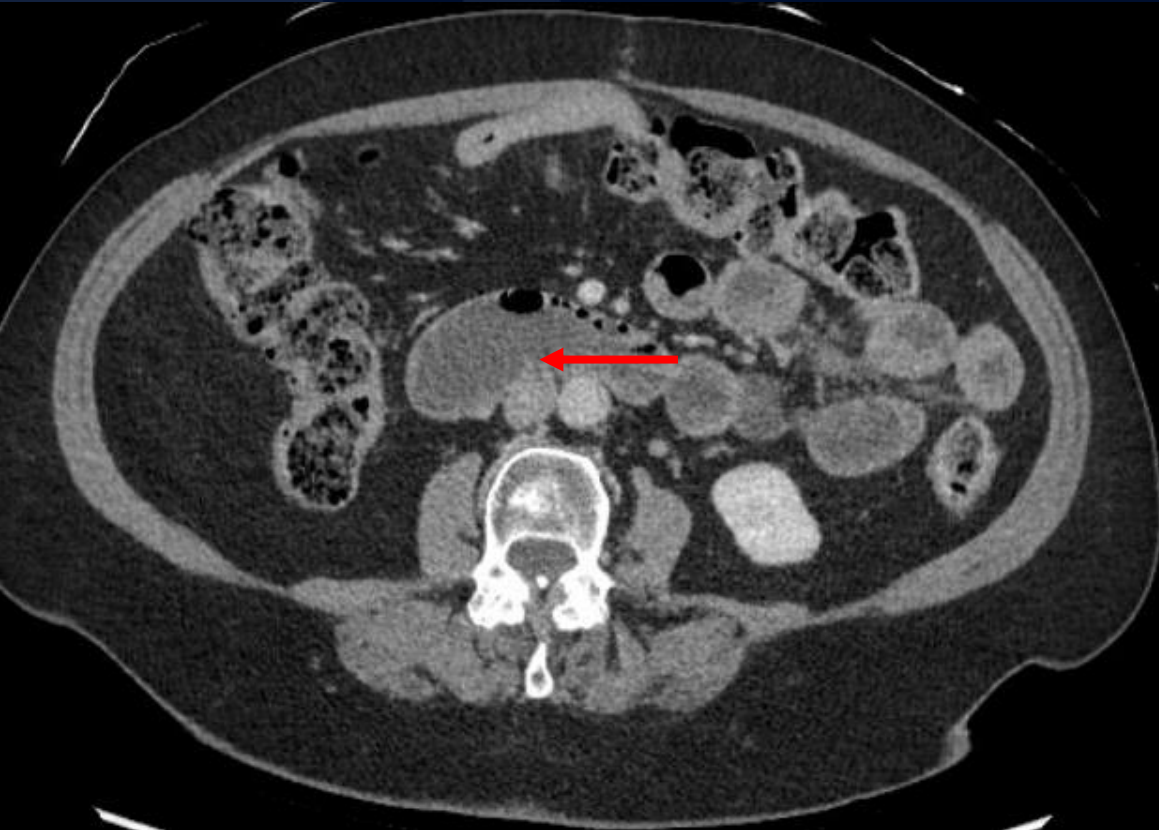


Decompressed small bowel entering  
and exiting ventral hernia



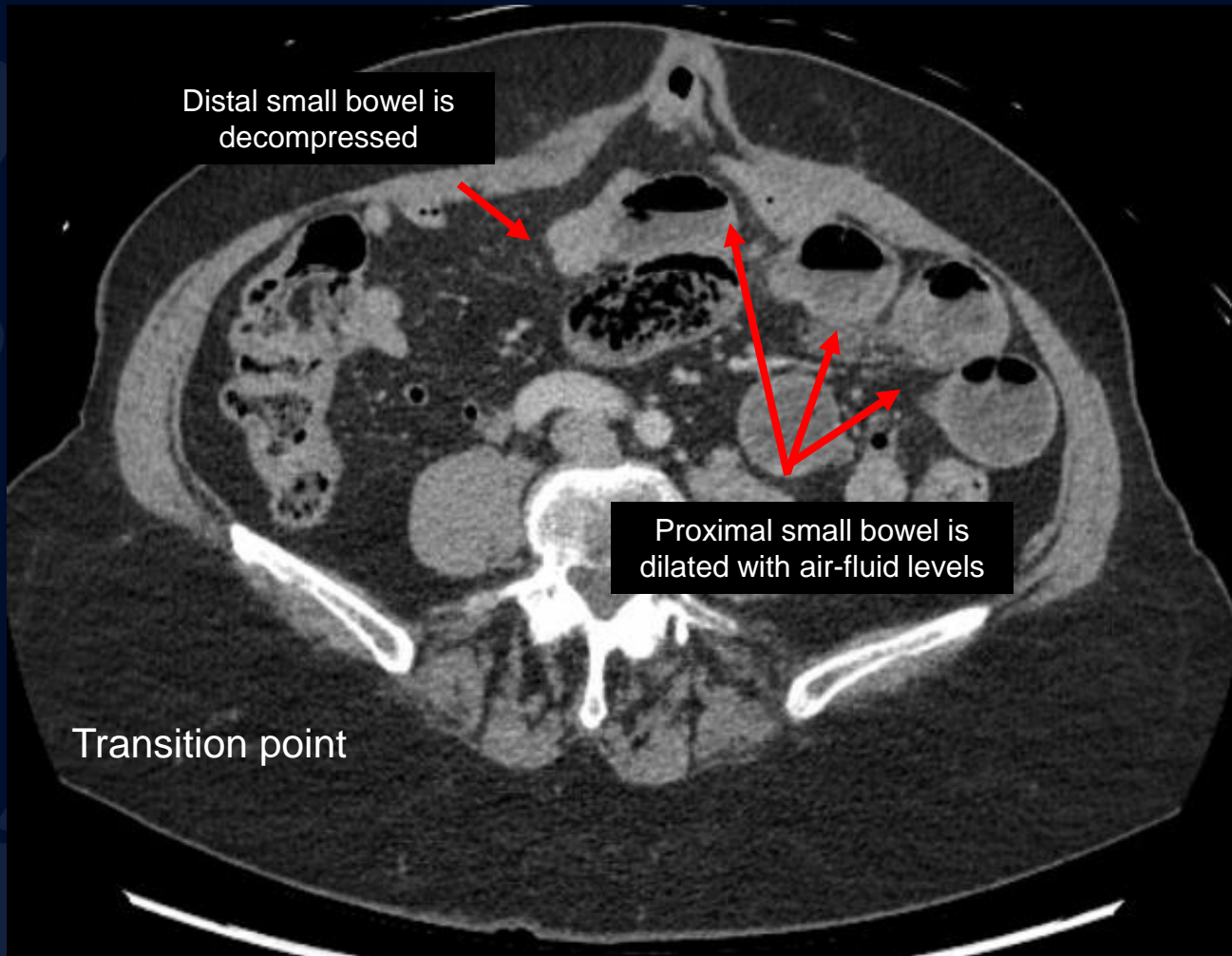
Stomach distension

# CT IV Contrast



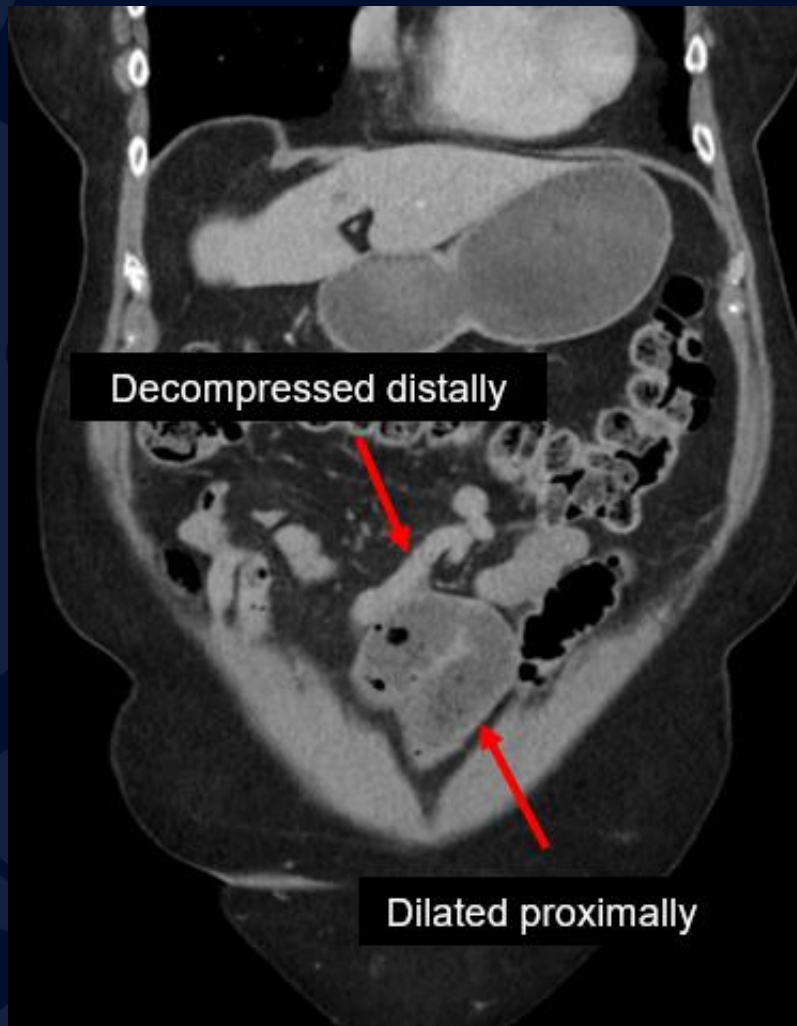
Duodenal distension

# CT IV Contrast





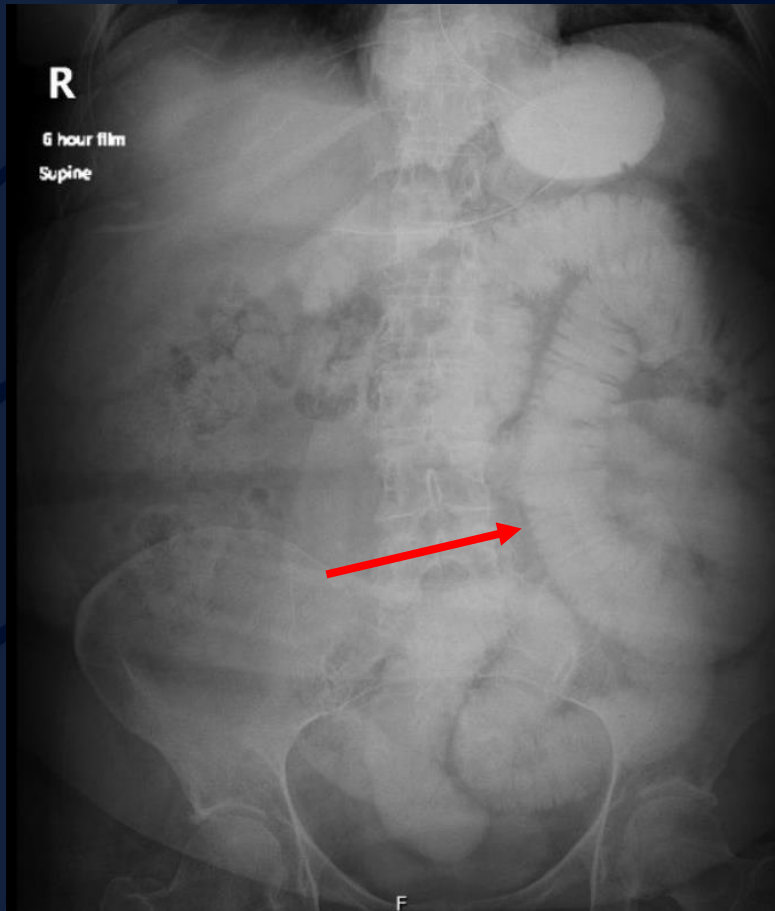
CT Coronal IV Contrast



CT Sagittal IV Contrast

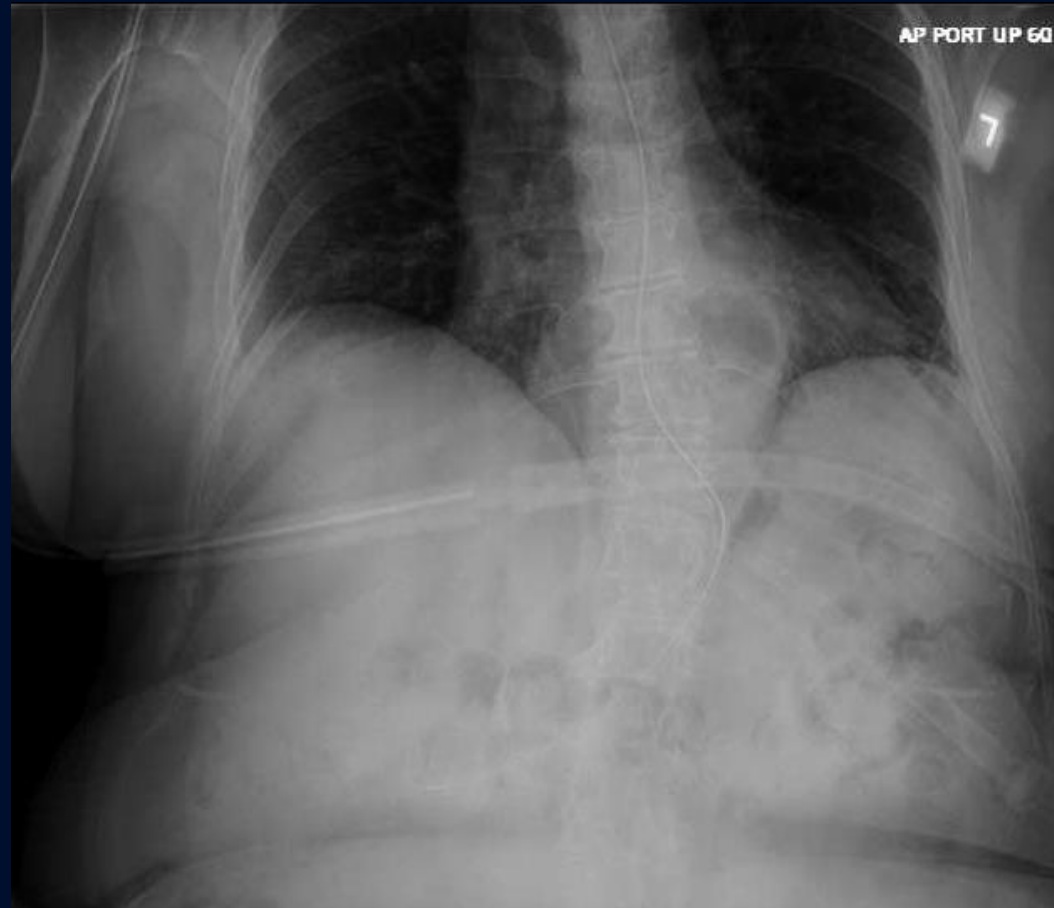


## 6 hr post oral contrast



Contrast filling small bowel on the left; no contrast reaches small intestine on the right

## Abdominal Radiograph



No pneumoperitoneum

Tube advances to the pylorus but does not cross back over midline

# Imaging Findings

## Radiograph

- Dilated small bowel loops with air-fluid levels on upright view

## CT

- Dilated small bowel loops measuring  $>2.5$  cm +/- air fluid levels
- Identification of transition zone between dilated and collapsed bowel
- SB feces sign- gas bubbles mixed with particulate matter in dilated loops just proximal to site of obstruction
- In the case of closed loop obstruction, there will be 2 obstruction points and involvement of the mesentery
  - Beak sign: fusiform tapering at point of obstruction

## Results from 2019 meta-analysis on use of CT to diagnose SBO

- Overall specific & sensitive test (89% and 91%), slightly higher than *Radiology's* 2015 estimate of 83% & 82%
  - IV contrast does not impact this, nor does slice thickness
  - Transition points are a little harder to rule in
    - Specificity 77%, sensitivity 92%



# References

Li Z, Zhang L, Liu X, Yuan F, Song B. (2019). Diagnostic utility of CT for small bowel obstruction: Systematic review and meta analysis. PLoS One. 14(12). PMID 31887146

Paulson E, Thompson W. (2015) Review of small-bowel obstruction: the diagnosis and when to worry. Radiology. 275(2).  
<https://doi.org/10.1148/radiol.15131519>

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