

- A) Ordered an antiemetic and evaluate PO tolerance .
- B) Abdominal X-ray to rule out bowel obstruction
- C) Prescribe Lanzoprazol for suspicion of GERD and follow up as an outpatient
- D) Consult pedi surgery for evaluation and recommendations.
- E) Abdominal US.

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- D) Consult pedi surgery for evaluation and recommendations.
- E) **Abdominal US.**

Correct answer is E:

In a 4 week old patient with continuous nonbilious vomit after feedings and an abdominal mass, mostly in the upper abdomen, it is necessary to rule out pyloric stenosis. US is the preferred examination because it directly visualizes the pyloric muscle .

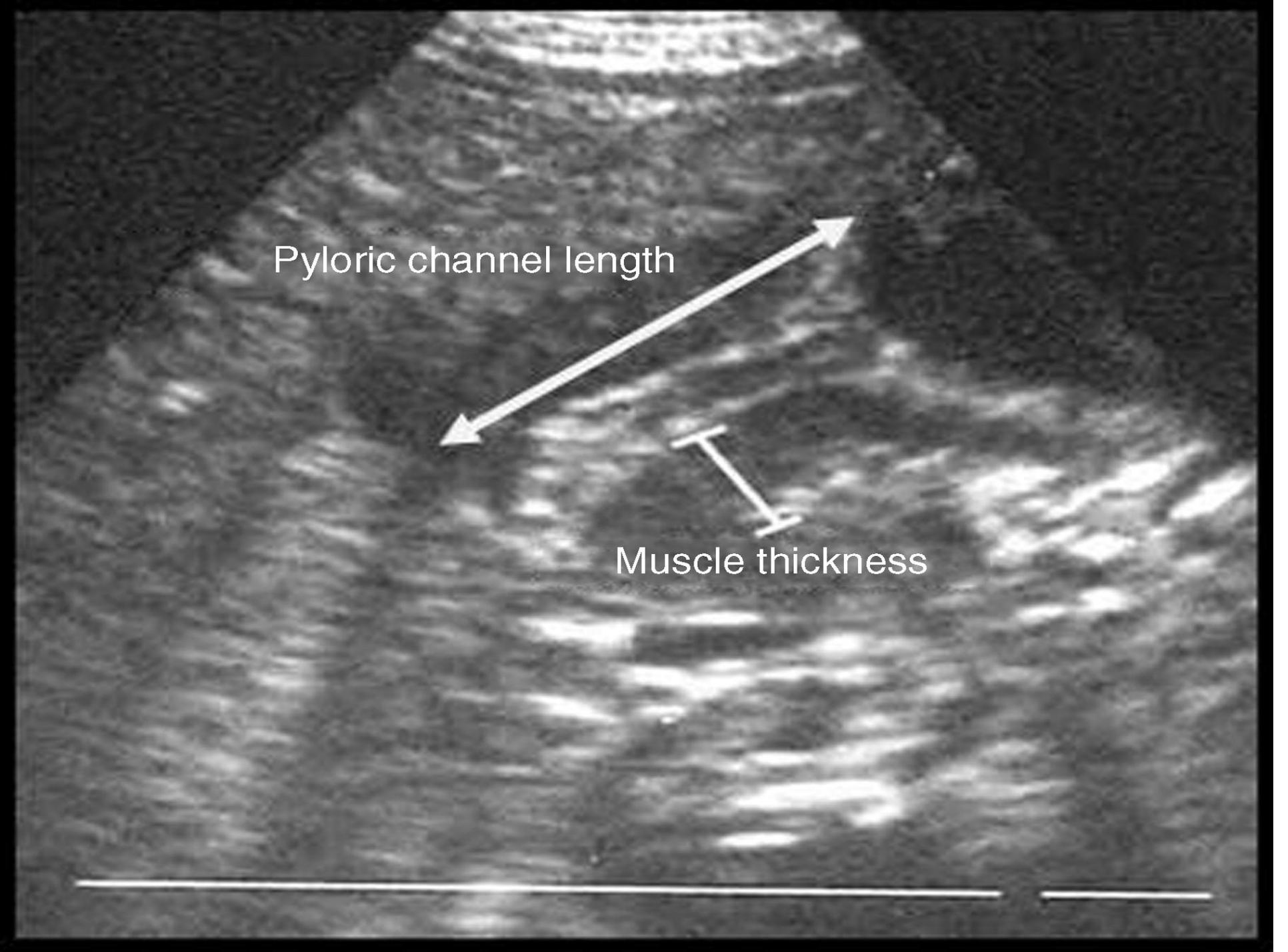
Normally, the pylorus is < 17mm in length and is muscular wall <4 mm in width.

The abdominal x ray can show gastric distension but does not visualize the pyloric muscle.

Patients with GERD can have emesis after food intake but there's no association with an abdominal mass.

Antiemetics and proton pump inhibitors are not the next step at this moment.

Pediatric surgery will be consulted after the diagnose of pyloric stenosis is confirmed by US for pylorotomy.



Pyloric channel length

This is a longitudinal B-mode ultrasound image of the pyloric channel. The image shows the lumen of the stomach on the left, the pyloric channel in the center, and the pylorus on the right. A long double-headed arrow is drawn along the length of the pyloric channel. A shorter double-headed arrow is drawn perpendicular to the muscle layer of the pylorus. A white horizontal line is visible at the bottom of the image.

Muscle thickness

5 month old male patient with past medical history of TEF, came to the ER projectile vomiting after every feeding. The mother referred that he is still hungry and wants to eat more and more.

The mother brought the patient yesterday to another ER where the labs revealed metabolic alkalosis, with low K and chloride. VS: WNL. PE: no abnormal findings. Abdominal US showed pylorus 18mm in length and 5mm width . What is the correct management for this patient?

- A) IV dex 5% + 0.45% normal saline at maintenance and antiemetics
- B) Upper GI endoscopy, famotidine, follow up by GI
- C) Rehydration, correct electrolytes , pylorotomy
- D) Pylorotomy

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The correct answer is C:

The patient's diagnosis is pyloric stenosis, which is usually associated with mild to moderate dehydration and electrolyte abnormalities.

Only giving IV fluids and antiemetic do not resolve the real etiology of the patient's disease.

Upper GI and famotidine are not useful in this case.

Intravenous fluid therapy is begun with 0.45–0.9% saline, in 5–10% dextrose, with the addition of potassium chloride in concentrations of 30–50 mEq/L.

Fluid therapy should be continued until the infant is rehydrated and the serum bicarbonate concentration is  $<30$  mEq/dL, which implies that the alkalosis has been corrected.

Correction of the alkalosis is essential to prevent postoperative apnea, which may be associated with anesthesia.

# References

Nelson Textbook of Pediatrics 19<sup>th</sup> ed

Img:Pediatrics.georgetown.edu

Harriet Lane Handbook 19<sup>th</sup> edition