Obesity in IBD: Using Intestinal Ultrasound

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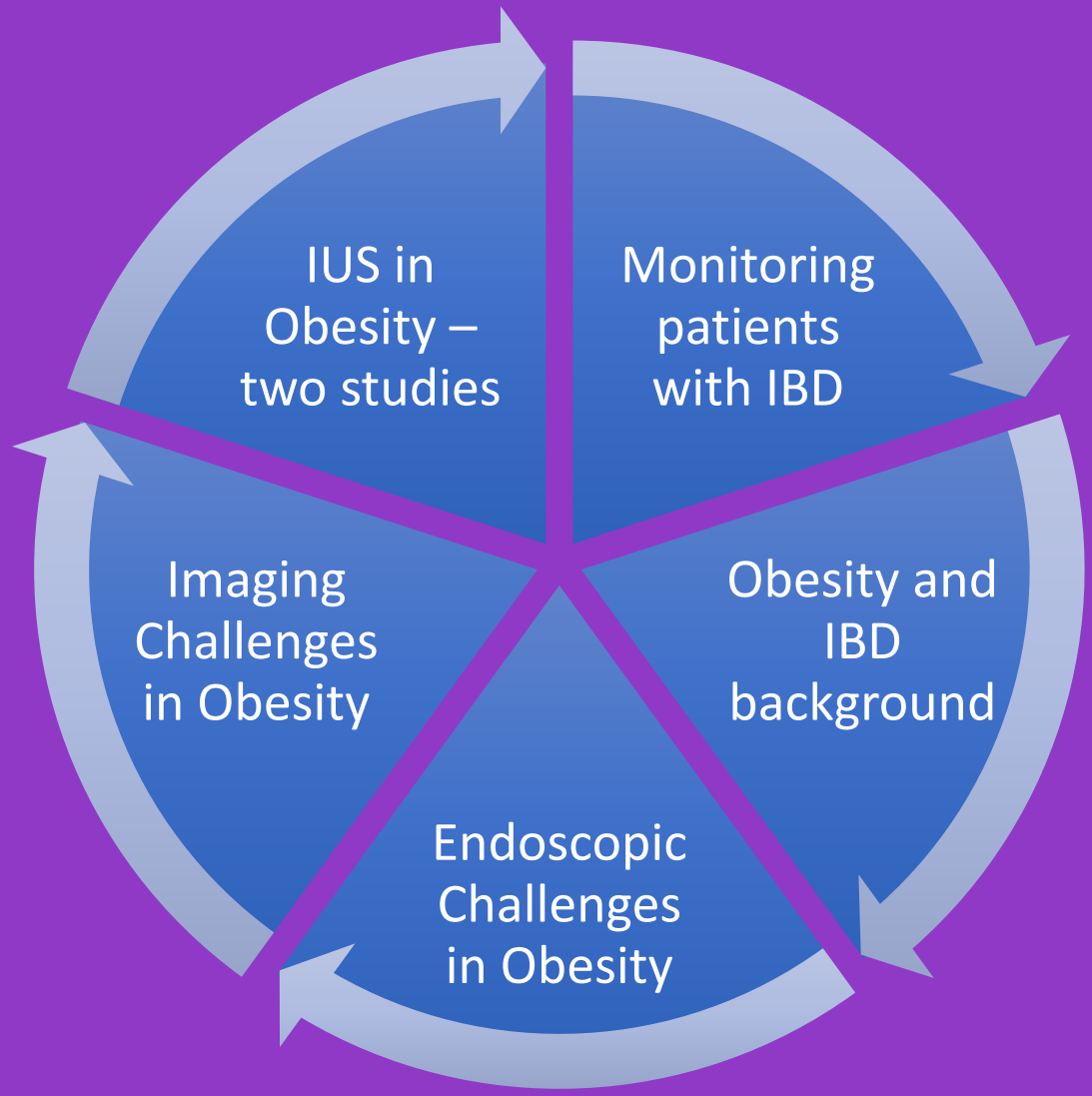
Learning Objectives



Monitoring Patients with IBD

- Stride II Guidelines – treat to target approach
    - Short term aim- clinical response and remission
    - Long term aim- endoscopic remission, improved quality of life
    - Frequent interval endoscopic evaluation to assess for endoscopic remission and disease activity
    - Using fecal calprotectin and CRP levels to trend

STRIDE-II: An Update on the Selecting Therapeutic Targets in Inflammatory Bowel Disease (STRIDE) Initiative of the International Organization for the Study of IBD (IOIBD): Determining Therapeutic Goals for Treat-to-Target strategies in IBD Turner, Dan et al.Gastroenterology, Volume 160, Issue 5, 1570 - 1583

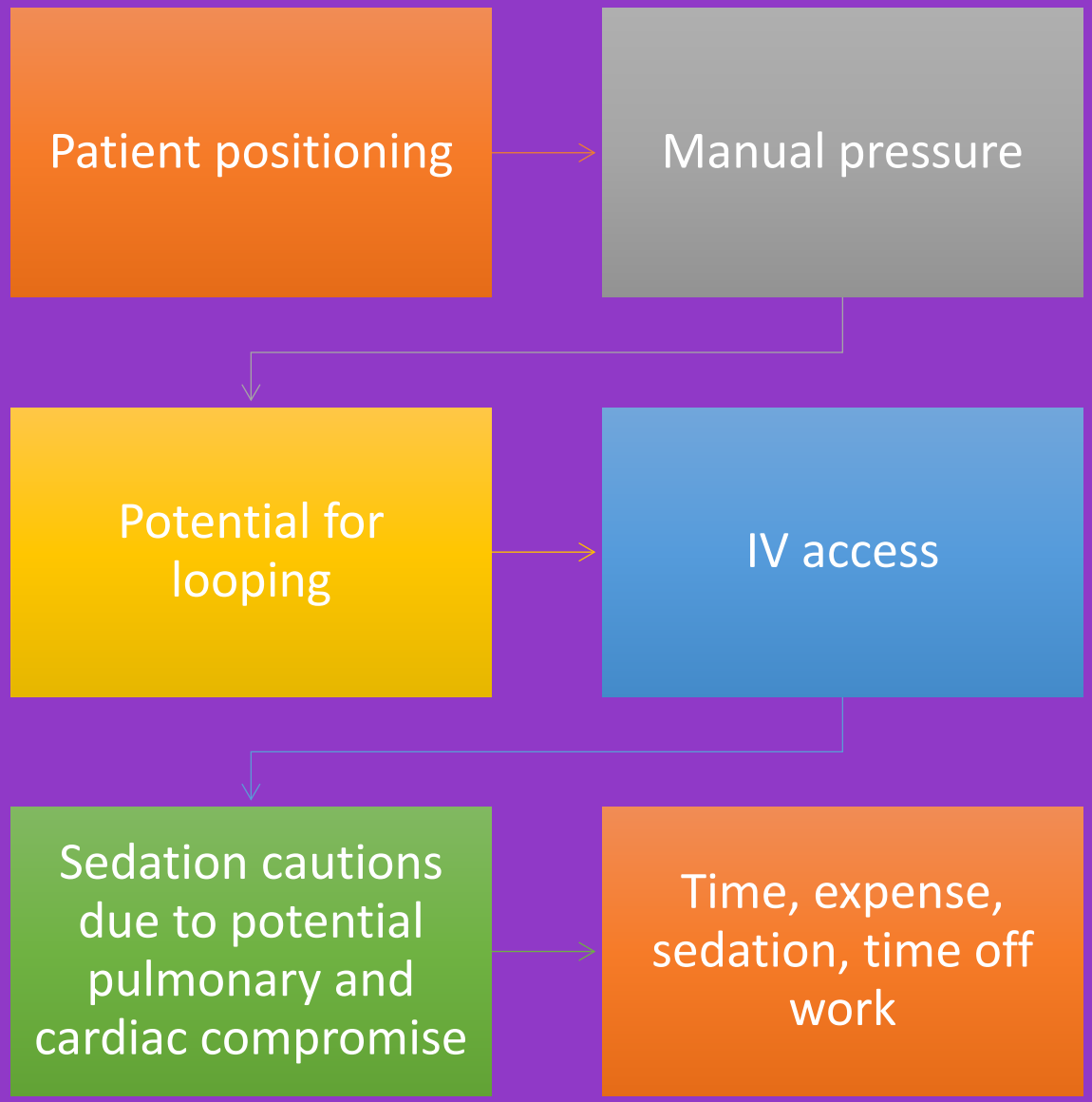
Obesity and IBD

Rates of obesity since 1975 have tripled

Rates of IBD diagnosis has increased over the past 10 years

Kaazan P, Seow W, Yong S, Heilbronn LK, Segal JP. The Impact of Obesity on Inflammatory Bowel Disease. Biomedicines. 2023 Dec 8;11(12):3256. doi: 10.3390/biomedicines11123256. PMID: 38137477; PMCID: PMC10740941.

Endoscopy Difficulty in Obesity



Imaging Difficulty in Obesity

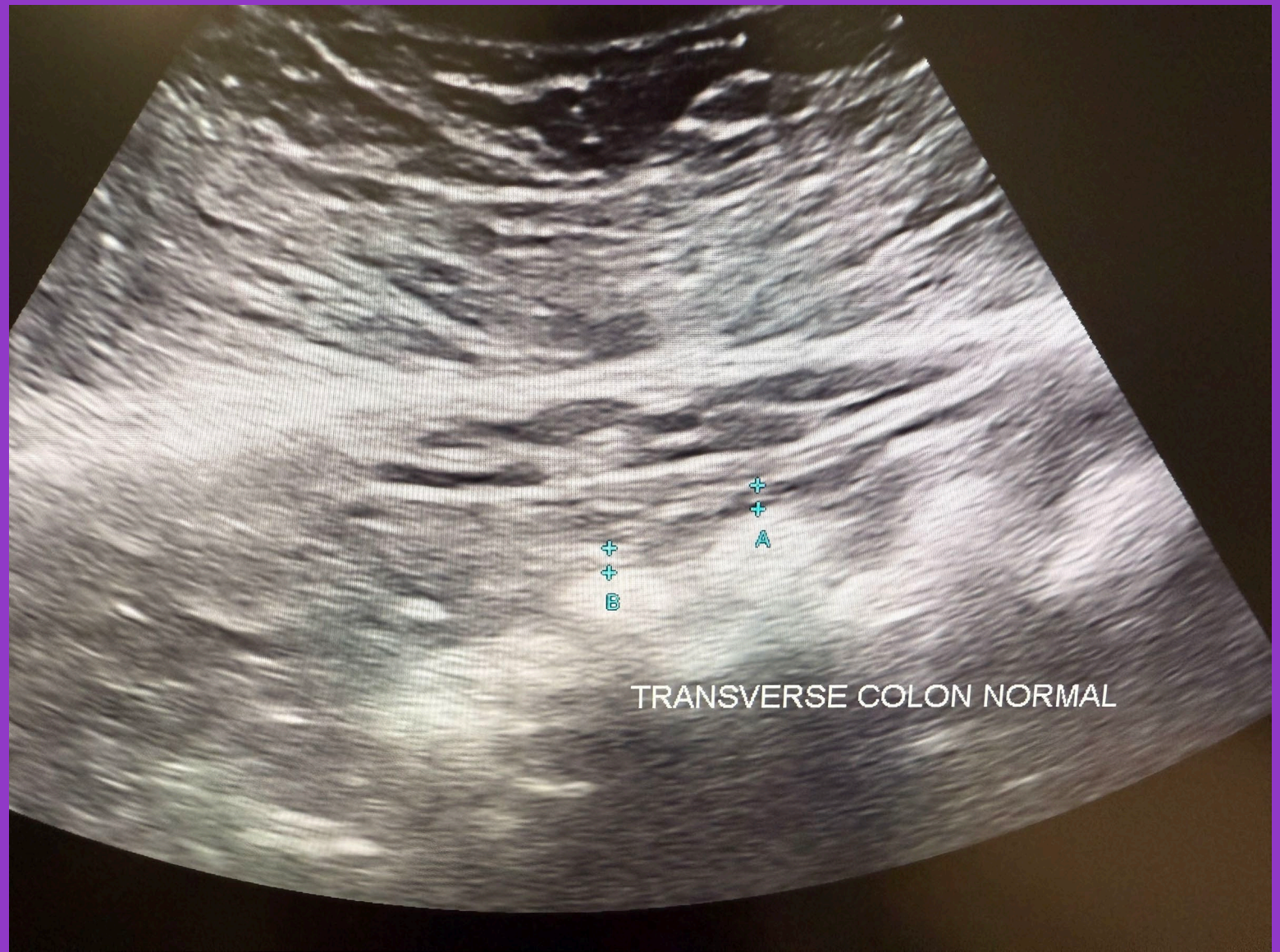
- Increased fat can cause decreased quality of CT scans
- Some imaging modalities have girth requirements or weight requirements
- Increased artifacts or decreased imaging quality due to increased soft tissue and poor positioning
- Misdiagnosis
- Increased cost repeating images

IUS Challenges in Obesity

- Increased fat causes signal attenuation in ultrasound
- Drs. Selah and Bincy conducted a study assessing the utility of IUS in clinical practice and looked at patient populations based on BMI with a total of 148 patients.
  - Underweight, Normal, Overweight, or Obese (BMI 30 <)
  - Inflammation on IUS in 33% of overweight patients and 32% of obese patients.
  - These rates were similar to other BMI categories.
  - None of the overweight patients required additional testing to confirm disease.
  - Treated based on IUS findings and clinical presentation.

Saleh A, Abraham BP. Utility of Intestinal Ultrasound in Clinical Decision-Making for Inflammatory Bowel Disease. Crohns Colitis 360. 2023 May 15;5(3):otad027. doi: 10.1093/crocol/otad027. PMID: 37292105; PMCID: PMC10246583.

IUS Challenges in Obesity (BMI is 37 in this image)



Our Study

21 patients with a diagnosis of IBD and obesity (defined by BMI 30 or greater with majority BMI 35 + and as high as 58) by using IUS to assess for active inflammation.

US results were compared to fecal calprotectin results for standardization of inflammation. All fecal calprotectin results were captured within three months of IUS exam.

Six patients had elevated fecal calprotectin levels with active inflammation scored as a Lindberg 1 seen on IUS. Fifteen patients had normal fecal calprotectin levels with normal IUS exams scored as Lindberg 0.

IUS in obesity was consistent and accurate in our study.

Questions?