Body Mass Index Trend in Patients Presenting for Colonoscopy Over 7 Years (2012-2019)

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Background

- The prevalence of obesity has been increasing dramatically and is a major public health concern.
- Obesity and weight gain in adulthood are related to an increased risk of colon cancer in both men and women.
- Patient weight and weight gain could be potential modifiable factors.
- Trends in BMI for patients presenting for screening colonoscopy have not been previously evaluated at Nebraska Medicine.
- This study intends to fill the gap in current knowledge regarding weight gain trajectories of patients' electing to undergo routine colonoscopies as well as any potential relationship outcomes.

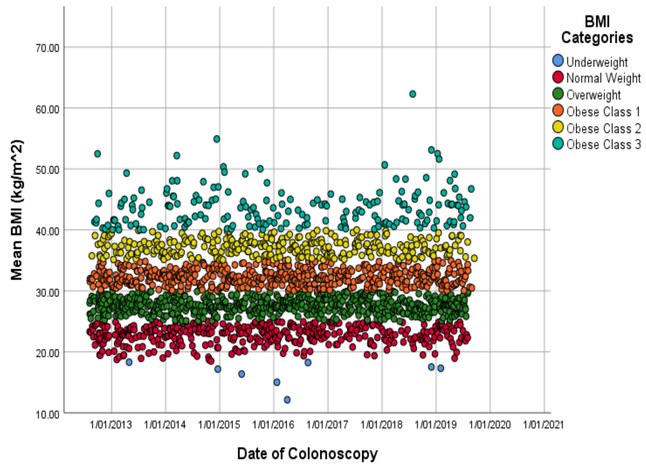
Methods

- Retrospective analysis was conducted based on 3117 colonoscopy results conducted by family medicine physicians at Nebraska Medicine between July 1, 2012 and July 1, 2019.
- We evaluated age, gender, race, ethnicity, BMI, weight, height, colonoscopy findings, and pathology results.
- Patients were categorized into the following six BMI categories: underweight, <18.5 mg/m2; normal, 18.5–24.9 kg/m2; overweight, 25–29.9 kg/m2; class I obesity, 30–34.9 kg/m2; class II obesity, 35–39.9 kg/m2; and class III obesity, ≥ 40 kg/ m2.

Patient Demographics

Characteristics	N (%)
Total, N (%)	3117 (100)
Gender, N (%)	
Female	1492 (47.9)
Male	1625 (52.1)
Ethnicity, N (%)	
Hispanic or Latino	111 (3.6)
Not Hispanic or Latino	3002 (96.3)
Patient Refused	1 (0)
Unknown	3 (0.1)
Race, N (%)	
White or Caucasian	2632 (84.4)
Black or African American	315 (10.1)
Asian	71 (2.3)
Other	94 (3)
Patient Refused	1 (0)
Unknown	4 (0.1)
Age, years, mean, (SD)	57.68 (7.8)
BMI (kg/m^2)	
Female	30.4543 (6.9)
Male	30.0441 (5.2)
Total	30.2396 (6.1)

Study Results



Pre-Colonoscopy Diagnoses

Reason for Procedure	N
Personal History of Colon Polyps	804
Screening	2748
Personal or Family History	500

Conclusion and Future Directions

- The average patient presenting for routine colonoscopy is obese.
- There did not appear to be an increasing trend in BMI over time among patients who had colonoscopies.
- There were no differences in BMI trend based on weight category.
- By the time patients are presenting for their routine colonoscopies, most are already at an increased risk of colon cancer as a result of their elevated BMI.
- This finding suggests an unmet need for obesity intervention and education of patients, who are potentially at an increased risk of colon cancer mortality.

References

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