

Impact of Hispanic Ethnicity on Colorectal Cancer Surveillance Outcomes and Management in an Institutional Longitudinal Cohort of Lynch Syndrome Patients

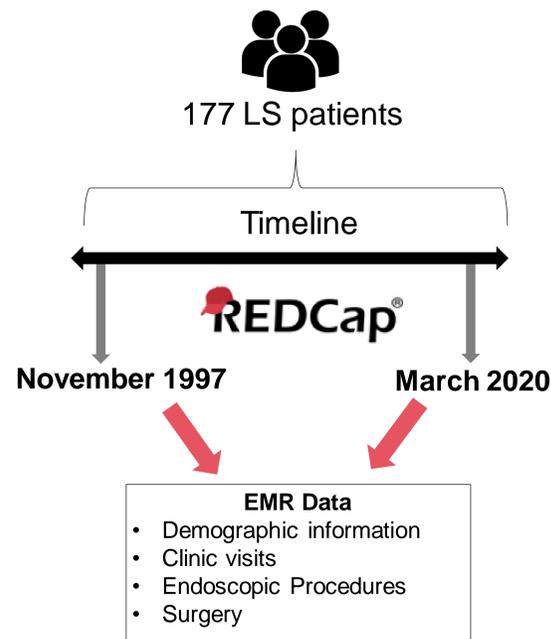
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Background

- Lynch Syndrome (LS) is the most common inherited cause of colorectal cancer (CRC)
- LS patients have an 80% lifetime risk of developing CRC
- Despite well-documented risk, variance in symptom presentation and management are not well understood
- Similarly, variation in LS management by race/ethnicity is not fully understood
- Therefore, we aimed:
 - To characterize and report CRC screening outcomes for the LS patient cohort
 - To document any differences in clinical presentation by Hispanic ethnicity for these patients.

Methods



Results

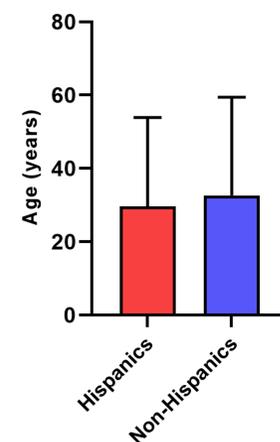
- The median age at first colonoscopy was 45.5 ± 13.0 years (range 17-73 years).
- The most common gene mutation was *MSH2* (32.8%), followed by *MLH1* (30.5%), *MSH6* (18.6%), and *PMS2* (9.1%). *EPCAM/TACSTD1* was the least common mutation (1.1%). 7.9% of patients had no mutation found.

Results

Table 1. Demographics of LS Patients

Demographics	N = 177
Age	
18-29	22 (12.4%)
30-39	31 (17.5%)
40-49	34 (19.2%)
50-59	47 (26.6%)
>60	43 (24.2%)
Sex	
Female	106 (59.9%)
Male	71 (40.1%)
Race	
White or Caucasian	138 (78%)
Black or African American	8 (5%)
Asian	9 (5%)
Other/Unknown	22 (13%)
Ethnicity	
Hispanic or Latino	23 (13%)
Not Hispanic or Latino	146 (82.5%)
Unknown	8 (4.5%)

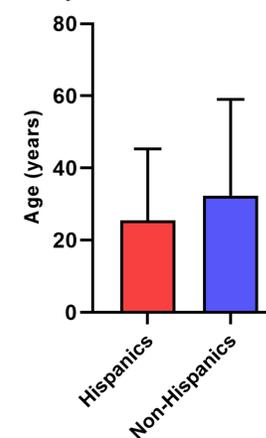
Figure 1. Age of patients at clinic visit by Hispanic ethnicity



- Hispanics with LS were younger at clinic visits compared to non-Hispanics.*
- Hispanics visited the clinic at a mean of 46.8 years old (SD = 12.4).
- Non-Hispanics visited the clinic at a mean of 51.6 years old (SD = 13.7).

*p-value <0.001 on bivariate analyses

Figure 2. Age of patients at first colonoscopy by Hispanic ethnicity



- Hispanics with LS were significantly younger at initial colonoscopy compared to non-Hispanics.*
- Hispanics had their first colonoscopy at a mean age of 39.5 years \pm 11.5 years.
- Non-Hispanics had their first colonoscopy at a mean of 51.2 years \pm 13.5 years.

Patient Visits and Lower GI Endoscopy (LE) Outcomes.

- In our cohort, 838 total visits.
- LS patients had average of 4.8 visits with a median interval of 12 months.
- LS patients had an average of 4.8 colonoscopies.

25 Colonic CRCs:

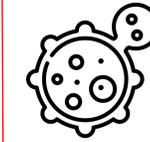
- 20% Stage 0
- 24% Stage I
- 28% Stage II
- 24% Stage III
- 4% Unknown

665 Colonic Polyps

- 80.3% were in the colon
- 19.7% were in the rectum
- The mean polyp size was 3 mm.
- An average of .46 polyps were found per LE scope.
- 5.8% of all polyps were advanced adenomas

We found no statistically significant increase in tubular or advanced adenomas in initial colonoscopy for Hispanics, $X^2(2, N=163)=.29, p=0.867$.

Results



- Adenoma Characteristics:**
 - 50.6% were tubular adenomas
 - 28.8% were hyperplastic adenomas
 - 3.38% were tubulovillous Adenomas
 - 8.3% were inflammatory adenomas
 - 4.8% were sessile serrated adenomas
- Advanced Adenoma Characteristics:**
 - 47.4% were high grade dysplasia
 - 15.8% were sessile serrated
 - The mean size of advanced adenomas is 11.2 mm.

Upper GI Endoscopy (UE) Outcomes



- 118 UE Polyps:**
 - 78.0% were in the stomach
 - 22.0% were in the duodenum
- An average of .17 polyps were found per UE scopes.
- Patients had a total of 361 UEs, with an average of 2.04 UEs per patient.
- Hispanic patients had a total of 146 UEs, with an average of 1.78 UEs per patient.

- Of the 5 stomach adenocarcinomas identified, none were found in Hispanic patients.



- 217 patients had UE biopsies**
- 173 patient had H Pylori testing**
 - 6 patients with positive H Pylori test.
 - 3 patients with confirmed eradication.
 - 0 positive H Pylori tests were found in Hispanic patients in our cohort.

Conclusions

- Hispanic patients are younger than non-Hispanic patients at their initial colonoscopy and subsequent visits.
- Despite younger age at initial colonoscopy and visits, Hispanic patients had no difference in colonic polyps than non-Hispanic patients.
- Our findings provide support for the successful implementation of screening and surveillance guidelines.
- Future studies should continue to collect robust information for LS patient cohorts.