Disparities in Timeliness of Care in Anal Cancer: A Retrospective Chart Review

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Background and Objective: Approximately 10,540 new cases of anal cancer (AC) will be diagnosed in the USA in 2024, but its incidence has increased two-to-four-fold in the past few decades. Areas with higher social vulnerability have decreased odds of colorectal cancer screening, resulting in delayed healthcare presentation. This project describes the elapsed time between initial symptomatic presentation and diagnosis of AC across 3 possible points of process failure and explores the impact of patient factors and social vulnerability on time to diagnostic resolution.

Project Methods: Patients diagnosed with AC within the Indiana University Health system from 2020-2024 were identified using the electronic health record. Cases were reviewed (n=478); demographics and the following timepoints were noted: initial symptomatic presentation, specialist referral, diagnostic testing, and AC diagnosis. The primary outcome was time between presentation and diagnosis, with diagnostic delay classified as more than six weeks. Patient factors and clinical characteristics were compared to calculate risk ratios to explore associations between these factors and diagnostic delay.

Results: After exclusions, analysis of the cohort (n=193) showed that 99 patients (51.3%) did not experience a delay, and 94 did (48.7%), with a total median SVI of 0.51 (IQR=0.29-0.75) and delay of 39d (IQR=17-90). Patients with a delay (SVI=0.53; IQR=0.30-0.76) had similar SVIs to those without a delay (SVI=0.51; IQR=0.22-0.75; p=0.462). Older patients had a higher risk of experiencing a delay than a younger patient (RR=1.005; CI=1-1.01; p=0.038). Patients working full-/part-time have an increased risk of delay than those retired (RR=0.832; CI=0.721-0.96; p=0.012) or unemployed (RR=0.849; CI=0.746-0.967; p=0.014).

Conclusion and Potential Impact: Older age and employment status are drivers of diagnostic delay after AC presentation. No measures of social vulnerability were associated with delayed care. Further work exploring the process failures to diagnostic resolution will inform interventions targeting barriers and facilitators. As barriers-to-care are reduced, more patients can have improved cancer outcomes and quality of life.