

Methods A retrospective analysis was performed using 8341 colposcopic videos from 2013 to 2019, consisting of seven cases of early-stage cervical cancer, 203 cases of CIN3, and 456 cases of CIN1. An AI-based lesion detection model was developed to identify major abnormal colposcopic findings. The model was first trained using annotated colposcopic findings with the highest acetic acid intensity in cervical cancer and CIN3 cases whose histological diagnoses were confirmed by biopsies. The developed AI model was then applied to CIN1 cases and the diagnostic accuracy of the lesions was evaluated.

Results The AI-based model identified major abnormal colposcopic findings in cervical cancer and CIN3 cases with an area under the curve (AUC) of 0.89 for lesion area and 95% accuracy for number of lesions identified. The model also predicted minor abnormal colposcopic findings in CIN1 cases, with an AUC of 0.81 for detection of lesion area and 93% for identification of number of lesions. In addition, a heat map display based on the prediction results allowed visualization of the area of highest acetic acid intensity corresponding to the actual biopsy locations.

Conclusion/Implications Newly developed AI-based diagnostic system for colposcopy could identify CIN lesions with high accuracy and suggest appropriate biopsy sites.

AS17. Social inequities and impact on cancer outcomes

PR090/#818

PREVENTION AND MANAGEMENT OF CERVICAL CANCER: A GENDER-LENS REVIEW OF PROGRAMMATIC AND SOCIOCULTURAL DIMENSIONS IN BANGLADESH

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Introduction Due to the high prevalence of risk factors like early marriage, multiparity, low socioeconomic status, and limited screening, Bangladesh has a high burden of cervical cancer. Through a gender lens and an intersectional framework, this study seeks to understand the prevention and treatment of cervical cancer.

Methods The study was held at four hospitals, namely Bangabandhu Sheikh Mujib Medical University, National Institute of Cancer Research and Hospital, Dhaka Medical College, and Mymensingh Medical College. Using a mixed methods approach, 174 clinically diagnosed patients were surveyed, and 22 qualitative interviews were conducted. Quantitative data were analyzed using inferential statistics, and qualitative data using thematic analysis.

Results Poverty, along with other sociocultural practices like early marriage (92%) and high parity (36%), were identified to increase the vulnerability of women to cervical cancer. The study also identified multiple challenges patients with cervical

cancer face during the diagnosis and treatment phases, such as financial and psychological. The risk was found in women in rural areas (OR=0.4; 95% CI: 0.168–0.799) compared to women in urban areas and those who faced financial constraints with beginning treatment compared to those who already began treatment (OR=1.0; 95% CI: 1.000–1.018). The identified psychological difficulties included harmful social norms and fear of recurrence.

Conclusion/Implications Economic and psychological vulnerability integrates with critical insights of intersectionality, which makes women more likely to develop cervical cancer and face difficulties after diagnosis.

AS18. Surgical techniques and perioperative management

PR091/#367

IMPROVING THE RATE OF SAME DAY DISCHARGE IN GYNECOLOGIC ONCOLOGY PATIENTS UNDERGOING MINIMALLY INVASIVE SURGERY – AN ENHANCED RECOVERY AFTER SURGERY QUALITY IMPROVEMENT INITIATIVE

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Introduction Same-day discharge (SDD) in patients undergoing minimally invasive gynecologic oncology surgery (MIGOS) is a recent trend aligned with Enhanced Recovery After Surgery (ERAS) principles. SDD in MIGOS has been shown to be safe and feasible based on several recent studies. A baseline audit at our institution found the SDD rate in MIGOS to be 14%. To address this, we initiated an ERAS quality improvement (QI) project with the goal to increase the SDD rate in MIGOS >75%.

Methods Four interventions were designed to address root causes identified for failed SDD following QI diagnostics: 1) SDD as the default discharge plan, 2) 'Day Surgery' surgical booking, 3) development and implementation of an ERAS SDD order set, and 4) patient education SDD documents. A pre/post-intervention design was used (50 patients per group) and rate of SDD was measured together with patient demographics and surgical outcomes. Process and balancing measures were defined and tracked.

Results SDD in MIGOS increased from 14% to 82% after the implementation of the above interventions (OR 28, $p < 0.0001$, 95%CI 9.54–82.11). Improved SDD was achieved without negatively impacting postoperative rates of emergency department visits: 8% pre-, 4% post-intervention within 7 days (OR 0.48, $p = 0.678$, 95%CI 0.09–2.74), 12% pre-, 10% post-intervention within 30 days (OR 0.8148, $p = 1.0$, 95% CI 0.2317–2.86).

Conclusion/Implications An ERAS QI initiative resulted in a substantial increase in SDD in MIGOS, without causing negative impacts on defined balancing measures.