Risks for complications and need for repeat excisional procedures of the uterine cervix

Katherine R. Robichaux, LSU Health Sciences Center, School of Medicine

Topic: Cervical

Objectives
This study aims to identify the risk factors associated with needing a repeat excisional procedure of the cervix, either Cold Knife Conization (CKC) or Loop Electrical Excision Procedure (LEEP), within one year of the index excision and to investigate if re-excisional procedures within one year are at higher risk for complications.

Methods
A multi-site, retrospective study of patients aged 18 years or older undergoing either CKC or LEEP from 2019-2021. Clinicopathologic and surgical factors were examined to test for risk factors associated with surgical complication and need for re-excision. The relationship between time to second excision and complication risk during second excision was also analyzed. Continuous covariates were compared between excision groups using a Wilcoxon rank-sum test while categorical covariates were compared using a Fisher exact test.

Results
Of the 188 eligible patients, 23 (12.23%) underwent re-excision within one year of the index procedure, totaling 211 excisional procedures. When looking for specific risk factors associated with re-excisional procedures less than one year apart, re-excision patients were significantly more likely to have a higher pathologic grade (p=.007), have HIV (p=.032), and have a longer case duration for the index excision (p=.018). Complications were 9.37 times more likely with re-excision compared to index excision (OR 9.37 (CI 1.48-67.9), p=.007). Finally, among the patients who had a time between excisions of more than 42 days, 6.3% of patients had a complication - compared to 42.3% of patients who had a shorter duration, though results did not meet statistical significance (p=.067).

Conclusions
Grade, HIV status, and case duration during index excision were found to have a statistically significant association with needing a re-excisional procedure of the cervix. Re-excisions were associated with a higher risk for complication. Although not statistically significant, complications with re-excisions appeared to be associated with shorter time between excisions (< 42 days from index excision). Optimal re-excision timing > than 42 days and initial excisional procedure with specialized gynecologist, for patients with high-risk histology and/or HIV should be considered.