Quality of Care NL

Endometrial Cancer Associated With Lynch Syndrome Has a More Adverse Phenotype Than Sporadic Endometrial Cancer

Objective

To determine whether endometrial cancer that occurred in Lynch Syndrome caused by MSH2 mismatch repair gene mutations had a different phenotype (histology and clinical expression) compared to sporadic endometrial cancer.

Practice Points

1. Female carriers of an autosomal dominant mismatch repair mutation are at high risk of developing endometrial cancer.

2. In a group of female MSH2 mutation carriers, gynecologic screening did not result in earlier gynecologic cancer detection and, despite screening, two young women died from ovarian cancer suggesting hysterectomy with bilateral salpingo-oophorectomy be considered in female carriers who have completed child bearing (Stuckless S et al, Clin genetic, 2013).

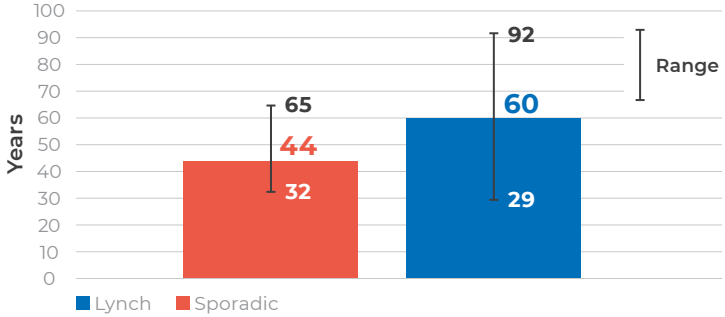
Methods (PI: Dr. A. Nichols)

1. Clinical data was abstracted from the medical charts of 46 women with a known MSH2 mutation and compared to similar data recorded for sporadic endometrial cancer in the NL Cancer Care Registry diagnosed from 2000 to 2010.

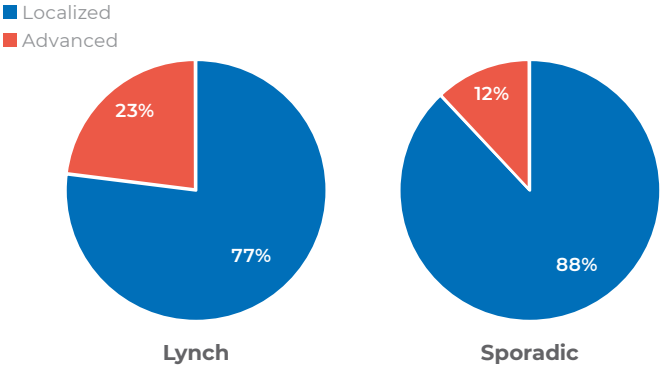
Results

- Endometrial cancer in female MSH2 mutation carriers was diagnosed at a significantly younger age than in sporadic endometrial cancer, at a significantly more advanced stage of disease, with a significantly higher prevalence of papillary serous and clear all type carcinomas, with a significantly higher grade of cancer.

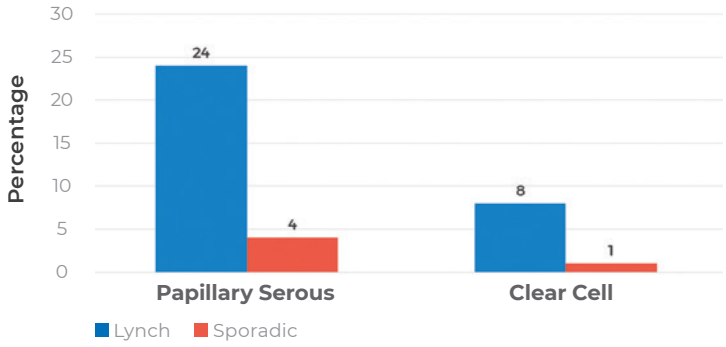
Median Age at Diagnosis with Range



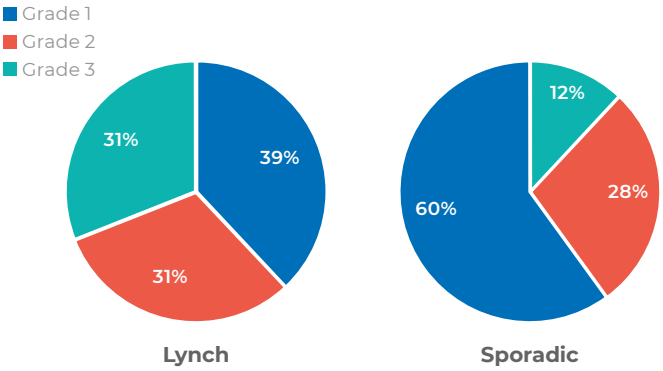
Localized (Stage I and II) versus Advanced (Stage III and IV)



Cell Type Carcinomas



Carcinoma Grade



Conclusion

1. The phenotype of endometrial cancer in female Lynch Syndrome MSH2 mutation carriers is more adverse than that of sporadic endometrial cancer with earlier age of diagnosis, significantly more advanced stage and grade of cancer.