

CDH1 Hereditary Diffuse Gastric Cancer: Does Family History Change Your Risk?

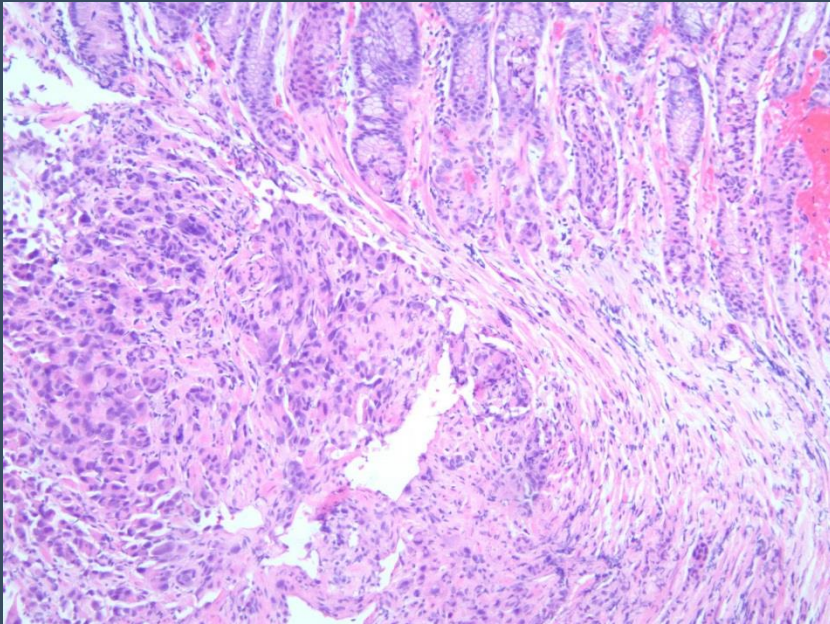
Margaret O'Malley, Lisa LaGuardia, Brandie Leach, Jessica Marquard, David Liska, Karen Hurley, Matthew Kalady, James Church, Gautam Mankaney, Michael Cruise, Matthew Walsh, Carol A. Burke

Sanford R. Weiss, MD Center for Hereditary Colorectal Neoplasia, Digestive Disease and Surgery Institute
Cleveland, Ohio USA



History of CDH1

Mutations in the *CDH1* gene result in hereditary breast and diffuse gastric cancer



The International Gastric Cancer Linkage Consortium (IGCLC) criteria

- At least 2 diffuse gastric cancers in first or second degree relatives with one < age 50
- ≥ 3 diffuse gastric cancers in first or second degree relatives of any age

The International Gastric Cancer Linkage Consortium (IGCLC) criteria

- Families with 2 or more gastric cancers at any age, one confirmed diffuse
- Individuals with diffuse gastric cancer before age 40
- Personal or family history of lobular breast and diffuse gastric cancer, one < age 50

Aim

Compare gastric cancer risk, stage and outcome between individuals ascertained from IGCLC criteria versus those who were referred from other means



Method

- Demographics
- Gene mutation
- Family history
- Polyp burden
- Cancer and surgical history
- Data describing management and outcomes



Results

31 patients were identified from 20 families

- 17 women and 14 men
- 26 patients are living, average age is 48 years old (range 15-77)
- Mean age of genetic testing was 44.4 years
- Mean age at first EGD was 44.9 years

Gastric Cancer

16/31 (52%) gastric cancers were identified, mean age of cancer diagnosis was 40 (range 24-58)

- 5 patients had stage IV gastric cancers, all are deceased, average age of death was 39 (range 24-51)

Family History or IGCLC criteria

Family	Ascertainment	Family Members (n=14)	GC on the first EGD	GC on interval exam	Cancer Stage	Symptomatic at time of EGD
1	IGCLC1	2	1	1	I / I	No
2	IGCLC1	1		1	I	No
3	IGCLC1	2				No
4	IGCLC1	1	1		IV	Yes
5	IGCLC1	1	1		IV	Yes
6	IGCLC1	1	1		I	Yes
7	IGCLC2	1	1		IV	Yes
8	FH CDH1	3	1	1	IV / I	Yes / No
9	FH CDH1	1				No
10	FH CDH1	1				No

Breast / Ovarian Cancer Panel

Family	Ascertainment	Family Members (n=17)	GC on the first EGD	GC on interval exam	Cancer Stage	Symptomatic at time of EGD
1	Gastric Cancer	1	1		I	Yes
2	Gastric Cancer	1	1		IV	Yes
3	Breast Ca Panel	1		1	I	No
4	Breast Ca Panel	1				No
5	Breast Ca Panel	1		1	I	No
6	Breast Ca Panel	2				No
7	Breast Ca Panel	5	2		I / I	No
8	Breast Ca Panel	1				No
9	Breast Ca Panel	2	1		I	No
10	Breast Ca Panel	2				No

Breast Cancer

6 patients had breast cancer, all women,
average age at diagnosis 49.5 (range 39-60)
and none are deceased from breast cancer



Summary

Gastric cancer was still significant for those obtained from breast / ovarian cancer panels in comparison to those ascertained through family history of gastric cancer / IGCLC criteria



Summary

The stage and outcome of gastric cancers was better for those who did not fit family history / IGCLC criteria



Conclusion

CDH1 positive patients should have the same surveillance regardless of ascertainment



Thank you

