Factors associated with uptake of endocrine prevention in patients with atypical hyperplasia and lobular carcinoma *in situ*

Hamda Almarzooqi MD,[1,3] Natasha Stonebanks-Cuillier BSc, Victor Villareal Corpuz RN BNI,[2 2, 5] Sarah Saboobheh MSc, Ipshita Prakash MD, MSc,[1,2,3] Mark Basik MD,[1,3] Jean Francois Boileau MD, MSc,[1] Karyne Martel MD,[1] Sarkis Meterissian MD, Msc,[1,3 2,3,5] Stephanie M Wong MD, MPH[1,2,3]

[1] Department of Surgery, McGill University Medical School, Montreal, QC, Canada [2] Stroll Cancer Prevention Centre, Jewish General Hospital, Montreal, QC, Canada [3] Department of Oncology, McGill University Medical School, Montreal, QC, Canada [4] Department of Plastic and Reconstructive Surgery, McGill University Medical School, Montreal, QC, Canada

McGill

Hôpital général juif
Jewish General Hospital
Centre du cancer Segal Cancer Centre

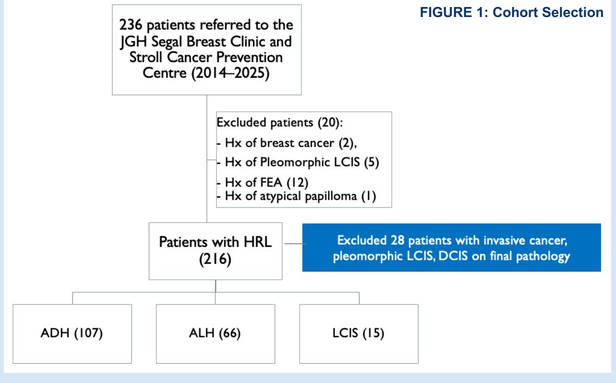
BACKGROUND

- Women with atypical breast lesions (ADH, ALH, or LCIS) carry a 4- to 10-fold higher risk of developing breast cancer;
- International guidelines (ASCO, NCCN, USPSTF) recommend endocrine prevention, yet uptake remains low, below 10% in most studies;
- While standard-dose tamoxifen (20 mg) reduces risk by up to 50%, the recent TAM-01 trial showed similar efficacy and improved tolerability with low-dose tamoxifen (5 mg) administered for 3 years.

OBJECTIVES

To identify clinical and psychosocial factors associated with the uptake and initiation of endocrine prevention therapy among women with atypical hyperplasia and lobular carcinoma in situ (LCIS) in a real-world setting.

METHODS



METHODS

- **Study design:** Retrospective cohort study
- **Primary outcome:** Uptake of endocrine prevention, defined as receipt of a prescription and endocrine prevention initiation in eligible women.
- **Secondary Outcome:** Factors linked to initial refusal and early discontinuation of endocrine prevention therapy.
- **Statistical Analysis:** Group comparisons used Wilcoxon rank-sum, Chi-squared, or Fisher's exact tests. Temporal trends were assessed using the Cochran–Armitage test. Multivariable logistic regression identified factors associated with endocrine therapy use.

COHORT CHARACTERISTICS

Table 1: Clinical Characteristics (n=188)

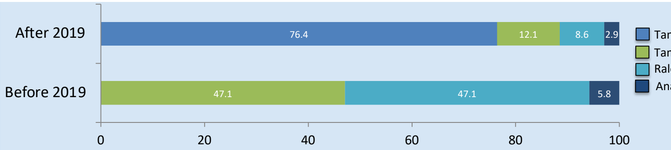
Characteristic	Number of patients (%)
Age – n, (%)	
<40 years	10 (5.3)
41-50 years	46 (24.5)
51-60 years	79 (42.0)
61+ years	53 (28.2)
Breast Biopsy Result – n, (%)	
Atypical ductal hyperplasia	107 (56.9)
Atypical lobular hyperplasia	66 (35.1)
Lobular carcinoma in situ	15 (8.0)
Family History of Breast Cancer – n, (%)	
Yes, first or second degree relative	46 (24.5)
No	142 (75.5)
Parity – n, (%)	
Nulliparous	75 (39.9)
One or more pregnancy	113 (60.1)
Menopausal Status – n, (%)	
Premenopausal	67 (31.0)
Postmenopausal	149 (69.0)
Oral contraceptive exposure – n, (%)	
Yes	82 (43.6)
No	106 (56.4)
Hormone replacement therapy – n, (%)	
Yes	22 (11.7)
No	166 (88.3)
ACR Type Breast Density – n, (% with breast density available)	
Type A (entirely fatty)	6 (3.7)
Type B (scattered fibroglandular)	54 (33.3)
Type C (heterogeneously dense)	77 (47.5)
Type D (extremely dense)	25 (15.4)
Surgical Excision of their HRL – n, (%)	
Yes	105 (55.9)
No	83 (44.2)

RESULTS

TABLE 2 Uptake of endocrine prevention in HRL patients (n=188)

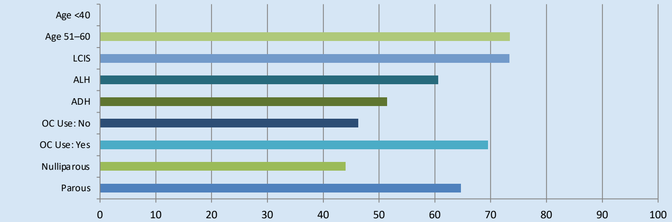
Characteristic	Total number of patients	% who accepted an Rx (row %)	p-value
Age – n, (%)			**<0.001**
<40 years	10 (5.3)	0%	
41-50 years	46 (24.5)	56.5%	
51-60 years	79 (42.0)	73.4%	
61+ years	53 (28.2)	41.5%	
Breast Biopsy Result – n, (%)			0.19
Atypical ductal hyperplasia	107 (56.9)	51.4%	
Atypical lobular hyperplasia	66 (35.1)	60.6%	
Lobular carcinoma in situ	15 (8.0)	73.3%	
Family Hx of Breast Cancer – n, (%)			0.71
Yes, first or second degree relative	46 (24.5)	58.7%	
No	142 (75.5)	55.6%	
Parity – n, (%)			**0.005**
Nulliparous	75 (39.9)	44.0%	
One or more pregnancy	113 (60.1)	64.6%	
Menopausal Status – n, (%)			0.38
Premenopausal	61 (32.5)	59.0%	
Postmenopausal	127 (67.6)	55.1%	
Oral contraceptive exposure – n, (%)			**0.001**
Yes	82 (43.6)	69.5%	
No	106 (56.4)	46.2%	
Hormone replacement therapy - n, (%)			0.78
Yes	22 (11.7)	59.1%	
No	166 (88.3)	56.0%	
ACR Type Breast Density – n, (% with breast density available)			0.11
Type A (entirely fatty)	6 (3.7)	50.0%	
Type B (scattered fibroglandular)	54 (33.3)	46.3%	
Type C (heterogeneously dense)	77 (47.5)	66.2%	
Type D (extremely dense)	25 (15.4)	64.0%	
Surgical Excision of their HRL – n, (%)			0.59
Yes	105 (55.9)	54.2%	
No	83 (44.2)	58.1%	
Date of atypical breast biopsy – n, (%)			0.79
Prior to 2019	29 (15.4)	58.6%	
After January 2019	159 (84.6)	56.0%	

RESULTS



After 2019, low-dose tamoxifen (5 mg) became the predominant regimen following ASCO guideline changes.

Figure 2. Regimen Trends Pre- vs Post-2019



Significant associations: Parity (p=0.005), Prior OC use (p=0.001), Age 51–60 (p<0.001); HRL type trend LCIS>ALH>ADH (p=0.19).

Figure 3. Predictors of Uptake (%) by Subgroup

CONCLUSIONS

- Among 188 women with atypical hyperplasia or LCIS, 56.4% accepted and 67% initiated endocrine prevention, reflecting moderate real-world uptake;
- Low-dose tamoxifen 5 mg was the most prescribed regimen (64.2%), with a major shift toward its use after 2019, reflecting growing clinical acceptance;
- Uptake was higher among women aged 51–60 years, parous patients, and those with prior oral contraceptive use, suggesting reproductive factors may influence decisions;
- Nearly one-third of eligible patients were not offered endocrine prevention despite clear evidence of benefit, indicating a gap in clinical counseling;
- Strengthening patient education and promoting low-dose, better-tolerated options may enhance uptake and long-term adherence to preventive therapy.

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