Endometriosis Diagnosis & Treatment: Still a Surgical Process

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BACKGROUND

- Endometriosis affects 10% of women and carries a high disease burden
- Recent guidelines recommend moving away from surgical interventions, favoring clinical diagnoses and a stepwise escalation of medical therapies

OBJECTIVE

- To examine the diagnosis and management of symptomatic endometriosis prior to surgical intervention at a large academic medical center

METHODS

- We performed a retrospective chart review of 105 patients who presented with symptomatic endometriosis between 2010-2023 and received initial surgical intervention within our health system
- Demographics, disease characteristics, and medical therapies were collected
- Time to diagnosis (TTD) and time to surgery (TTS) were defined as the time, in months, from first clinical presentation to date of diagnosis and date of the procedure
- Associations were evaluated using odds ratios, chi-square and Wilcoxon rank sum tests

RESULTS

DIAGNOSIS

- 63.8% (67/105) of patients received a surgical diagnosis
- 95.2% (100/105) of patients were diagnosed by a gynecologist
- Endometriosis by clinical diagnosis rather than surgical diagnosis was more likely when initial presentation was at an outside hospital system (OR 2.31, 95% CI 1.03 – 5.20)
- 3+ pain symptoms at initial presentation was associated with higher rates of clinical diagnosis when compared to two or fewer pain symptoms on presentation (OR 3.04, 95% CI 1.22 – 7.60)

MEDICAL THERAPIES

- The median duration of initial medical therapy was 5 months (IQR 2-9)
- 14.6% (7/48) of patients tried a second medical therapy
- 6.3% (3/48) of patients tried a third medical therapy

SURGICAL INTERVENTION

- 3+ pain symptoms at initial presentation (7.37 months, IQR 2.82 – 23.75) was associated with longer TTS compared to two or fewer pain symptoms (3.62 months, IQR 1.74 – 6.45, p = 0.014)

CONCLUSION

- The diagnostic and treatment practices we identified at our health system do not align with current practice guidelines
- Targeted efforts are essential to identify and address the barriers inhibiting the effective implementation of these clinical guidelines
- There's a need for broader investigations into regional and national practices regarding the diagnosis and management of symptomatic endometriosis

Table 1. Demographic Data of Included Patients

	Initial Presentation Davis (n = 58)	Initial Presentation OSH (n = 47)	p-value	Total (n = 105)
Mean Age (years)	33.29 ± 7.30	32.02 ± 6.70	0.430	32.72 ± 7.04
Mean Gravidity	1.03 ± 1.36	0.70 ±1.20	0.073	0.87 ±1.31
Mean Parity	0.62± 1.06	0.50 ± 1.00	0.624	0.57 ±1.03
Race			0.331	
African American	4 (6.90%)	1 (2.13%)		5 (4.76%)
Asian	4 (6.90%)	2 (4.26%)		6 (5.71%)
White	41 (70.69%)	29 (61.70%)		70 (66.67%)
NH/PI	1 (1.72%)	0 (0.00%)		1 (0.95%)
Unknown	1 (1.72%)	1 (2.13%)		2 (1.90%)
Other	7 (12.07%)	14 (29.79%)		21 (20.00%)
Ethnicity			0.636	
Hispanic	9 (15.52%)	9 (19.15%)		18 (17.14%)
Not Hispanic	48 (82.76%)	36 (76.60%)		84 (80.00%)
Unknown	1 (1.72%)	2 (4.26%)		3 (2.86%)
Number of Pain Symptoms			0.488	
one	8 (13.79%)	4 (8.51%)		12 (11.43%)
two	13 (22.41%)	13 (27.66%)		26 (24.76%)
three	16 (27.59%)	16 (34.04%)		32 (30.48%)
four	14 (24.14%)	8 (17.02%)		22 (20.95%)
five	5 (8.62%)	6 (12.77%)		11 (10.48%)
six	2 (3.45%)	0 (0.00%)		2 (1.90%)
Type of Pain Symptom				
Pelvic Pain	50 (86.20%)	43 (91.49%)		93 (88.57%)
Dysmenorrhea	46 (79.31%)	36 (76.60%)		82 (78.10%)
Abdominal Pain	32 (55.17%)	30 (63.83%)		62 (59.05%)
Dyspareunia	25 (43.10%)	23 (48.94%)		48 (45.71%)
Dyschezia	13 (22.41%)	3 (6.38%)		16 (15.24%)
Dysuria	9 (15.52%)	5 (10.64%)		14 (13.33%)

Data are reported as n (%) or mean ± standard deviation with *p* values calculated using Wilcoxon rank sum test for non-normal numeric variables.
OSH: outside hospital system, NH/PI: Native Hawaiian/ Pacific Islander

Table 2. Initial Medical Therapies for Symptomatic Endometriosis

Treatment	Initial Presentation Davis (n = 27)	Initial Presentation OSH (n = 21)	Total (n = 48)
Combined Hormonal Contraception	13 (48.15%)	6 (28.57%)	19 (39.58%)
Progestin Only Mini Pill	1 (3.70%)	2 (9.52%)	3 (6.25%)
Progestin-based Pills	5 (18.52%)	6 (28.57%)	11 (22.92%)
Long-Acting Reversible Contraception	5 (18.52%)	4 (19.04%)	9 (18.75%)
Contraceptive Injection	3 (11.11%)	1 (4.76%)	4 (8.33%)
GnRH Agonist	0 (0.00%)	1 (4.76%)	1 (2.08%)
GnRH Antagonist	0 (0.00%)	1 (4.76%)	1 (2.08%)
Aromatase Inhibitor	0 (0.00%)	0 (0.00%)	0 (0.00%)

Data are presented as n (%)
OSH: outside hospital system, GnRH: Gonadotropin Releasing Hormone; Combined hormonal contraception includes estrogen-containing contraceptive pill, contraceptive patch and contraceptive vaginal ring; Long-acting reversible contraception includes intrauterine device (IUD) and hormonal implant.