

HEALTH STATUS, FUNCTIONAL IMPAIRMENT, AND GERIATRIC SYNDROMES IN WOMEN 65 AND OLDER WITH PELVIC ORGAN PROLAPSE: HEALTH RETIREMENT STUDY

Hypothesis / aims of study

Health status and functional impairment are likely factors for elderly women to choose pessary versus surgery for treatment of pelvic organ prolapse. Our initial analysis showed that 1/3 of elderly women with prolapse self-reported their health status as poor/fair and half of them had functional impairment. Our hypothesis is that elderly women with worse health status and functional impairment are more likely to choose and receive conservative treatment as opposed to surgery for treatment of pelvic organ prolapse. Our aim is to assess health status, comorbidities, and functional impairment in elderly women with prolapse as well as compare utilization of treatment options by these health factors.

Study design, materials and methods

We used the Health Retirement Study (HRS) linked with Medicare claims data from the Centers for Medicare/Medicaid Services. The HRS is the largest ongoing prospective longitudinal study of older persons' health in the U.S. beginning in 1992 (1,2). It is a nationally representative sample of more than 30,000 persons over 50 years of age and their spouses interviewed every two years. To define our study population, we searched the inpatient, outpatient, and physician claims for International Classification of Diseases 9th Revision Clinical Modification diagnosis codes indicating prolapse. We assessed the demographics, comorbidities, health status, and functional impairment in Medicare-enrolled women with prolapse between 1992-2008. Health status was self-rated by respondents as poor, fair, good, very good, and excellent. Functional status measures included evaluation of strength, upper/lower body mobility, and activities of daily living (ADLs). Functional impairment was considered when a subject reported any limitation in any category. All measures were assessed at the time closest to diagnosis or before surgical treatment.

Results

The study population included 891 women with pelvic organ prolapse, of whom 258 (29%) self-rated their health as fair or poor. The race/ethnic distribution was 87% white, 6% black, and 7% Hispanic. The median age was 74, 59% were married, and 19% were classified as obese.

Women with poor/fair health status were more likely to have comorbidities such as arthritis, hypertension, prior stroke, cancer, and lung disease ($p<0.01$). These women also reported more frequently geriatric syndromes such as depression, urinary incontinence, low cognitive performance, hearing and visual impairment ($p<0.01$) Table 1. Functional impairment was significantly higher in women with self-reported poor/fair health status in all categories ($p<0.01$).

Over the course of the study period, 291 women (33%) received surgical treatment for prolapse, while 88 (10%) received pessary treatment only, and the remainder received neither treatment. Surgery was less common among those with poor health status compared to good health (8% vs. 25%, $p<0.001$). Women who had pessary for treatment were more likely impaired in upper body mobility, ADLs, and instrumental ADLs ($p<0.01$) than their counterparts who received surgical treatment (Table 2).

Interpretation of results

Considerable number of women 65 years and older from Health Retirement Study reported functional impairment and poor/fair health. Surgery for pelvic organ prolapse is less common in women with poor/fair health status and functional impairment. Women with pessaries are more likely to have functional impairment in upper body mobility and ADLs than women in the surgical group.

Concluding message

This analysis confirms that women 65 and older with pelvic organ prolapse frequently report poor/fair health status and functional impairment in various domains. Our data supports our hypothesis that women with poor/fair health status and functional impairment are more likely to have a pessary rather than a surgery for treatment of pelvic organ prolapse. These measures warrant further evaluation of their impact on patients' choices in treatment of pelvic organ prolapse in a prospective longitudinal approach. In addition, future analyses will assess the impact of surgery or pessary treatment on health and functional status outcomes.

Table 1: Comorbidities and geriatric syndromes in women with prolapse based on health status

Clinical conditions	Health Status				p-value
	Poor/Fair		Good/Very Good/Excellent		
Total cases	258		632		
Comorbid Condition N (%)					
Arthritis	213	82.8%	407	64.4%	<.001
Hypertension	181	70.4%	327	51.7%	<.001
Heart Disease	117	45.3%	123	19.5%	<.001
Prior stroke (281)	30	17.8%	38	6.2%	0.002
Prior cancer	47	18.3%	77	12.2%	0.017
COPD/Lung dz	43	16.7%	42	6.7%	<.001
Emotional problems	63	24.5%	71	11.7%	<.001
Geriatric Syndromes					
Depression (36)	90	37.8%	61	9.9%	<.001
Urinary Incontinence (31)	97	39.0%	168	27.5%	0.001
Falls (129)	71	32.1%	142	26.1%	0.090
Low cognitive performance (61)	106	46.3%	162	27.0%	<.001
Hearing impairment (6)	80	31.4%	95	15.1%	<.001
Vision impairment (5)	92	36.1%	87	13.8%	<.001

*Note: number missing for each condition is shown in parenthesis.

Table 2: Functional impairment in women with prolapse by treatment: pessary versus surgery

Clinical conditions	Treatment				p-value
	Pessary only		Surgery		
Total cases	88		291		
Strength Impairment	67	76.1%	211	72.5%	0.500
Upper Body Mobility Impairment	51	58.0%	111	38.1%	0.001
Lower Body Mobility Impairment	66	75.0%	182	62.5%	0.031
Activities of Daily Living	*	*	*	*	0.008
Instrument ADL	18	20.5%	25	8.6%	0.002

*Small numbers were masked to protect patient privacy.

References

- Wallace RB, Herzog AR. Overview of the Health Measures in the Health and Retirement Study. The journal of Human Resources. 1995 S84-S107
- <http://hrsonline.isr.umich.edu>

Disclosures

Funding: American Urogynecologic Society: Surgical Award **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Case Western Reserve University IRB **Helsinki:** Yes **Informed Consent:** No