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CASE REPORT

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Complete Pelvic Organ Prolapse in a Young Woman with Recent-Onset Ascites

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BACKGROUND INFORMATION

Pelvic organ prolapse (POP) is uncommon in young women. Most of the 400,000 procedures performed annually in the United States for POP correction are done in peri- or postmenopausal women (1). Traditionally, most cases of POP are thought to be secondary to damage to the pelvic floor tissues during childbirth and the resulting changes with aging and time (2). In the younger patient population, however, other contributing factors may play a significant role in the development of POP. One of these factors may be chronic and repetitive increases in intra-abdominal pressure imposed by chronic medical conditions, occupational and/or recreational activities.

CASE PRESENTATION

The patient is a 32 year old, G4P4 Hispanic female who presented to the OB/GYN clinic with a complaint of a pelvic bulge. She had been recently diagnosed with hepatitis C and cirrhosis. The diagnosis was made when the patient developed marked ascites and sought evaluation by her PCP. Over a time span of approximately 8 months, she gradually developed the current pelvic floor symptoms. No other medical problems were identified. Her obstetrical history was of an uncomplicated, unassisted vaginal delivery followed by 3 cesarean deliveries. She had no other surgical history. Her social history was significant for tobacco use (2 cigarettes per day). On review of systems, she had no complaints of urinary or fecal incontinence. On physical exam, the patient had a BMI of 25. The abdominal exam was significant for marked ascites. Her pelvic exam revealed the presence of total procidentia, or complete eversion of the vagina and pelvic organs. No pathology was identified on the uterus or adnexa. The patient was treated initially with a Gellhorn pessary. She is currently undergoing further evaluation and medical work up for possible surgical management.

DISCUSSION

POP is a poorly understood condition that potentially affects the quality of life of millions of women worldwide (3). It often coexists with other pelvic floor disorders, including urinary and fecal incontinence. Although it is difficult to estimate the true incidence of this condition given the lack of a standard definition for clinically significant POP, it is clear that the prevalence of pelvic floor disorders increases with age (4). In a study of a large managed care population in Oregon, the estimated lifetime risk by age 80 to undergo surgery for POP or urinary incontinence was 11.1% (5).

POP is considered to result primarily from deficiencies of or dam-

age to the tissues of the pelvic floor, including nerves, connective tissue, and muscle. Any condition that affects the integrity of these tissues, including childbirth, aging, pelvic neuropathies and structural or biochemical deficiencies in the collagen component, could potentially contribute to the development of POP (6). Chronic and repetitive increases in intra-abdominal pressure have also been identified as potential factors in the development of pelvic floor disorders, although there is little data to support this proposed relationship (6). Townsend et al found adiposity and weight gain to be strong independent risk factors for the development of urinary incontinence in middle-aged women (7). Similarly, occupational and recreational activities that involve repeated and prolonged increases in intra-abdominal pressure could also contribute to the development of POP. A review by Jorgensen that involved 1.6 million women found that the risk of having surgery for correction of POP was increased in nurses whose job required repetitive heavy lifting (8).

Parity and aging tissues are usually not significant factors in young women, and POP is uncommonly found (9). A study by Strohbehn, et al in 1997, found a high prevalence of underlying medical disorders among young women with POP, including rheumatologic, neurologic disease and congenital anomalies (9). This study supports the notion that alternate factors may play more predominant roles in the development of pelvic floor disorders in young women.

Pelvic floor disorders are not life-threatening illnesses. However, they can cause significant impairment to the day-to-day functionality and overall quality of life of the patient. Reports have identified emotional disturbances, anxiety and depression found commonly in these patients (10). Although scientifically understudied, these disorders may be associated with sexual dysfunction as well (11). These effects may be more pronounced in young women. A thorough assessment and individualized management plan may therefore cause a tremendous positive change in the psychosocial well being of the patient. Management of POP is accomplished by conservative, nonsurgical methods, such as a pessary, or by surgery. Surgical management, although more definitive, may not be an option in patients with medical conditions that impose a significant surgical risk.

The patient in this case illustrates an example of rapidly developing, complete POP in the setting of a new-onset medical illness that caused a sustained increase in intra-abdominal pressure. It is unknown if there was a degree of genital prolapse present prior

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to the development of ascites, as there are no available prior medical records. We do know that clinically, the patient did not have any pelvic floor symptoms prior to the development of ascites, and that she gradually developed her current pelvic findings in a relatively short period of time afterwards. Although little evidence is found in the literature regarding this relationship, this case supports the idea that chronic, sustained increases in intra-abdominal pressure may significantly contribute to POP. We believe this to have been the main factor in the development of total procidentia in this patient. Other contributing factors present in this patient may include a history of vaginal birth and tobacco use. However, given her young age and low parity, we believe these to represent minor contributing factors. To our knowledge, this is the first reported case in the literature associating ascites with POP.

Other examples of chronic, sustained increases in intra-abdominal pressure may include morbid obesity, pulmonary conditions that cause chronic coughing, and occupational and recreational activities that involve repetitive heavy lifting. Further studies are warranted to validate this proposed relationship and elucidate its mechanism of action in order to gain a fuller understanding of pelvic organ prolapse. Ultimately, this may serve to develop better preventive measures and better treatment options.



Image 1.
Illustration of complete pelvic floor prolapse of similar staging to that of this case presentation. From Up to Date, "Diagnosis and management of apical prolapse." Kimberly Kenton, M.D.

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