

Techniques in the Surgical Management of Pelvic Organ Prolapse

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ABSTRACT

Pelvic organ prolapse is a common condition affecting women worldwide, significantly impacting their quality of life. Surgical management plays a vital role in addressing the associated discomfort and dysfunction. This bibliographic review explores the epidemiology, significance, theoretical framework, encompassing definition, risk factors, complications, and management of pelvic organ prolapse. The discussion delves into emerging techniques and sheds light on the future of this critical aspect of surgical practice.

KEYWORDS: Pelvic Organ Prolapse, Surgical Management, Epidemiology, Risk Factors, Complications.

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INTRODUCTION

Pelvic organ prolapse (POP) is a highly prevalent condition that affects women of all ages worldwide. It arises when the pelvic organs, including the bladder, uterus, rectum, or small bowel, descend from their normal anatomical positions, often protruding into the vaginal canal. This condition can lead to a wide range of distressing symptoms, such as vaginal bulging, urinary incontinence, and bowel dysfunction. The epidemiology of POP reveals its substantial impact on women's health and underscores the importance of addressing this condition.

The epidemiological data surrounding POP is a stark reminder of the significant challenges faced by affected women. It is estimated that approximately 50% of parous women will experience some degree of pelvic organ prolapse in their lifetime. The prevalence of POP increases with age, with postmenopausal women being particularly susceptible. Moreover, risk factors such as obesity and multiple childbirths contribute to the development and progression of POP.

The significance of POP and its surgical management transcend beyond statistics. Women experiencing POP often

encounter a myriad of distressing symptoms that affect their physical and emotional well-being. These symptoms can lead to a substantial reduction in their quality of life, impacting daily activities, relationships, and self-esteem. The transcendence of surgical management lies in its ability to provide effective relief from these symptoms, offering women the opportunity to regain their quality of life.

Surgical techniques for the management of POP have evolved over time, with a shift towards not only addressing anatomical defects but also improving functional outcomes and minimizing complications. The field has moved from traditional approaches to more modern, minimally invasive methods, emphasizing a patient-centered approach that considers individual patient needs and preferences.

As we delve further into this bibliographic review, we will explore the theoretical framework surrounding the use of surgical techniques in the management of pelvic organ prolapse. This framework encompasses the definition of POP, the risk factors that contribute to its development, potential complications, and various approaches to surgical management. By gaining a comprehensive understanding of these critical elements, healthcare providers and patients can

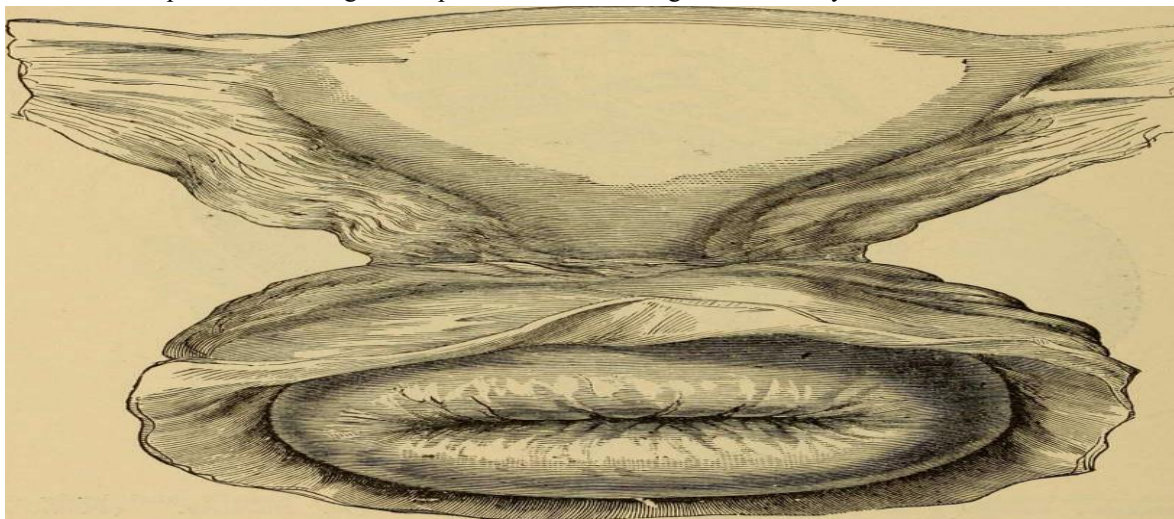
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work together to ensure the success of surgical management for POP.

Definition:

Pelvic organ prolapse (POP) is a condition characterized by the descent or herniation of one or more pelvic organs from their normal anatomical positions, leading to the protrusion

into the vaginal canal. The pelvic organs that are commonly affected by POP include the bladder (cystocele), the uterus (uterine prolapse), the rectum (rectocele), and the small bowel (enterocele). POP is often categorized based on the specific organs involved and the extent of the descent, with varying degrees of severity.



Showing second degree of prolapse ; elongation of cervix and body of uterus; swelling of part outside vulva; cystocele (It. Barnes). (From aspecimen in the AJweum of St. Thomass Hospital.)

RISK FACTORS

Understanding the risk factors associated with POP is crucial for both healthcare providers and patients. Several factors contribute to the development and progression of POP, including:

Childbirth: Vaginal childbirth, particularly with multiple deliveries, is a significant risk factor for the development of POP. The mechanical stress and stretching of pelvic floor muscles and ligaments during childbirth can result in weakening of these supportive structures.

Aging: As women age, the risk of POP increases. This is primarily due to the natural aging process, which leads to changes in the connective tissue and weakening of the pelvic support structures.

Obesity: Excess body weight places increased stress on the pelvic floor, which can exacerbate POP or make it more likely to develop. Obesity is a modifiable risk factor that can be addressed through lifestyle changes.

Genetics: There is evidence to suggest that genetics may play a role in the development of POP. Women with a family history of POP are at an increased risk, indicating a potential genetic predisposition.

Hormonal Changes: Hormonal changes, such as those occurring during menopause, can lead to alterations in connective tissue integrity and muscle tone in the pelvis, increasing the risk of POP.

Complications:

Surgical management of POP, like any medical procedure, carries potential complications that healthcare providers and

patients should be aware of. These complications may include:

Infection: Surgical site infections can occur following pelvic floor surgery and may necessitate antibiotic treatment.

Bleeding: Excessive bleeding during or after surgery may require intervention, potentially leading to anemia.

Recurrence: Despite successful surgery, POP can recur. The risk of recurrence is influenced by factors such as the type of surgical procedure and the presence of ongoing risk factors, like obesity.

Urinary or Bowel Complications: Surgical management can sometimes lead to urinary or bowel complications, including urinary retention, urgency, frequency, or fecal incontinence. These complications may require further medical intervention.

Management:

The management of POP involves both non-surgical and surgical approaches, with surgical intervention reserved for cases of severe or symptomatic prolapse. The choice of surgical technique is influenced by factors such as the type and extent of prolapse, the patient's overall health, and her goals and preferences.

Surgical options for POP management range from traditional approaches, such as colporrhaphy (anterior or posterior repair), to more modern and minimally invasive techniques. The decision-making process involves a thorough evaluation of the patient's condition and risk factors, ensuring that the chosen technique aligns with the patient's individual needs.

The primary goal of surgical management is to restore the normal anatomical position of the prolapsed pelvic organs, improve the patient's quality of life, and minimize the risk of complications. The selection of the most appropriate surgical approach should be a collaborative decision between the patient and her healthcare provider, considering the patient's goals, anatomy, and overall health.

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DISCUSSION

Emerging Techniques:

In recent years, innovative surgical techniques have significantly shaped the landscape of POP management. These techniques are characterized by their focus on improved outcomes, reduced complications, and faster recovery times.

Minimally Invasive Approaches: Minimally invasive surgical techniques, such as laparoscopic or robotic-assisted surgery, have gained prominence in the field of POP management. These approaches involve smaller incisions, reduced blood loss, and shorter hospital stays, which contribute to faster recovery and reduced postoperative pain. Minimally invasive surgeries are particularly advantageous for patients who may be at a higher risk of complications or have a preference for less invasive procedures.

Biological and Synthetic Grafts: The use of biological and synthetic graft materials to reinforce the pelvic floor has become a focus of research and innovation. These materials provide additional support and durability to pelvic structures, reducing the risk of recurrence. Biological grafts, derived from human or animal tissues, are known for their biocompatibility and may offer advantages over synthetic materials in some cases. Synthetic grafts, on the other hand, are designed to provide long-lasting structural support.

Tailored Surgical Approaches: Surgeons are increasingly adopting a patient-tailored approach to POP surgery. By considering the patient's individual anatomy, goals, and risk factors, surgical techniques can be personalized for improved outcomes and patient satisfaction. Tailored approaches are especially relevant when addressing patients with complex or recurrent cases of POP.

Future Directions:

The future of surgical management for POP holds several promising developments that aim to further enhance patient outcomes and the overall quality of care.

Tissue Engineering: Advances in tissue engineering and regenerative medicine are driving research into the development of bioengineered materials for pelvic floor repair. These materials aim to provide a more natural and durable solution for POP management, potentially reducing the risk of complications associated with traditional graft materials.

Improved Postoperative Monitoring: Enhanced postoperative monitoring, including the use of remote monitoring and telehealth, may become more common in the field of POP management. These technologies can help detect complications early, optimize patient recovery, and provide ongoing care without requiring frequent in-person visits.

Preventive Strategies: Future research may focus on strategies to prevent the development of POP, particularly in high-risk populations. These strategies could include lifestyle modifications, physical therapy, or medical interventions designed to strengthen pelvic floor muscles and reduce the risk of prolapse.

Implications:

The discussion surrounding surgical management for POP carries significant implications for both healthcare providers and patients:

Enhanced Quality of Life: Emerging surgical techniques are poised to significantly enhance the quality of life for women affected by POP. Improved outcomes, reduced complications, and quicker recovery times will help patients regain normalcy in their daily lives and restore their physical and emotional well-being.

Reduced Healthcare Costs: Minimally invasive approaches and outpatient surgeries may lead to reduced healthcare costs associated with POP management. Shorter hospital stays and fewer postoperative visits can benefit both patients and healthcare systems.

Advancements in Surgical Practice: The innovations in POP management have the potential to influence the broader field of gynecological and pelvic floor surgery. Lessons learned in this field can lead to improvements in other surgical areas, contributing to overall advancements in surgical practice.

CONCLUSION

In conclusion, surgical management for pelvic organ prolapse is evolving rapidly, with a strong focus on improving patient outcomes and reducing complications. Emerging surgical techniques, personalized approaches, and innovations in graft materials are reshaping the field. The future of POP management holds great promise, with advancements in tissue engineering, improved postoperative monitoring, and preventive strategies on the horizon.

As the field of surgical management for POP continues to evolve, women affected by this condition can look forward to improved outcomes and a higher quality of life. The commitment to research, patient-centered care, and innovative surgical techniques remains at the forefront of the transformative journey in the surgical management of pelvic organ prolapse.

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