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DIAGNOSIS AND MANAGEMENT OF OBSTRUCTIVE LESIONS IN FEMALE REPRODUCTIVE TRACT

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ABSTRACT

Anatomical abnormalities known as obstructive lesions of the female reproductive tract impede sexual or reproductive activities by obstructing or entirely blocking the normal passage of menstrual blood and fluids. The emotional and psychological components of developing sexuality, which affect the patient and her family, make treatment even more difficult and require intense medical counseling. Sexual identity, body image, and worries about future fertility are all impacted by such deformities, which can cause severe psychological stress. Restoring normal sexual and reproductive function, addressing psychological welfare are main aim of treating such conditions. These disorders may be congenital, meaning they exist from birth, or they may develop later for a variety of reasons. Medical science presented several approaches for diagnosis and treatment of these conditions which also includes psychological counseling. This article put emphasis on diagnosis and management of obstructive lesions in female reproductive tract.

KEYWORDS: *Medical, Anatomical Abnormalities, Obstructive Lesions, Gynecological.*

INTRODUCTION

Obstructive lesions of the female reproductive tract hinder sexual or reproductive functions by obstructing or completely restricting the normal passage of menstrual blood and fluids. Congenital obstructive disorders normally result from incomplete development or incorrect duct fusion during fetal life. Examples include fibrous partition that blocks the vaginal canal; an imperforate hymen, in which the vaginal opening is sealed by a membrane; a transverse vaginal septum and vaginal agenesis, etc.[1-4]

Other abnormalities involve obstructed hemivagina with a kidney anomaly on the same side, and cervical atresia or agenesis, in which the cervical canal is either closed or missing. Surgical procedures, infections and trauma are some of the causes of acquired obstructive lesions. Asherman's syndrome, for example, is characterized by the development of intrauterine adhesions, which frequently occur after uterine infections or dilatation and curettage. Narrowing of the cervical canal as a result of radiation therapy, menopause, or injury is known as cervical stenosis.

Additionally, trauma after childbirth, surgery or radiation exposure can result in vaginal adhesions or scarring. Clinical symptoms include primary amenorrhea in congenital cases, cyclical pelvic discomfort from stored menstrual blood and pain during intercourse are common manifestations of these obstructive disorders, infertility and repeated miscarriages brought on by intrauterine adhesions in some situations.[4-6]

Classification, Causes and Symptoms

A wide variety of structural abnormalities can arise from disturbances in the normal development of the female reproductive system, which may be brought on by hormone imbalances, genetic factors and vascular problems, etc. The classification frequently centers on developmental failures or abnormalities in the lateral or vertical fusion of embryonic structures, which may or may not lead to organ-to-organ contact. The different types of acquired obstructive lesions are depicted in **Figure 1**.

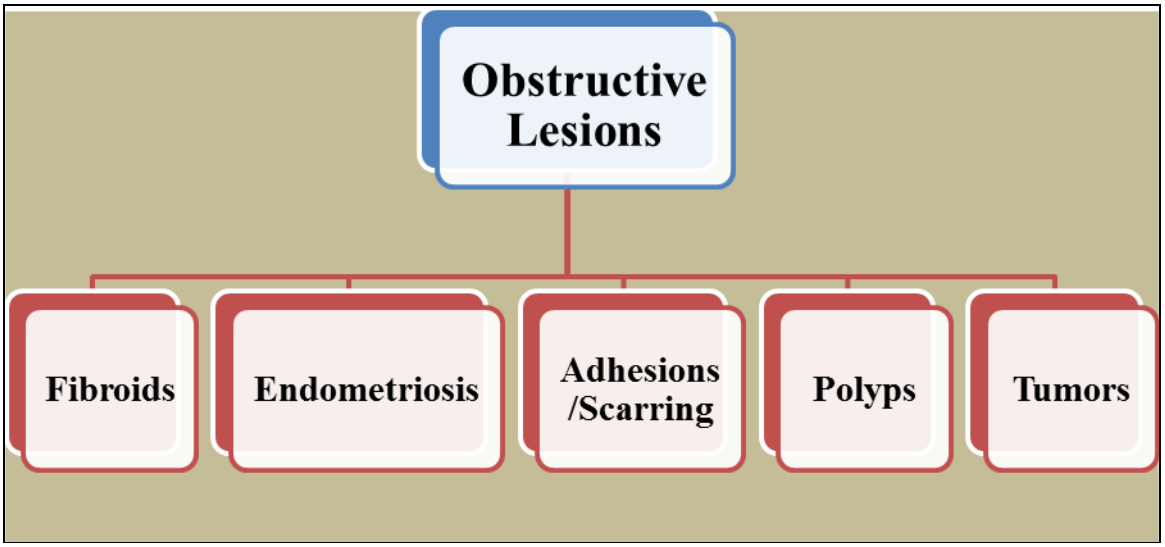

Figure 1: Obstructive lesions of female genital tract.

After birth, acquired lesions as mentioned above can arise from a variety of pathogenic diseases. Common examples include endometriosis, in which ectopic endometrial tissue produces adhesions or scarring that can restrict reproductive routes, and uterine fibroids, which are benign tumors that may obstruct the endometrial or cervical canal. Infections, surgeries, or trauma can also cause adhesions and scarring, which could change the normal structure of the reproductive system. Despite usually being benign, cervical or vaginal polyps can block the cervical aperture or vaginal canal. Furthermore, anatomical deformation and obstruction may result from reproductive tract cancers, both benign and malignant.[5-7]

These lesions may be acquired due to infections, surgical complications, traumatic injuries, endometriosis, or hormonal imbalances, or they may be congenital due to genetic mutations or developmental defects during embryogenesis.

The symptoms of these lesions are often varied. There may be primary amenorrhea, the painful menstrual cycle, or dysmenorrhea, might worsen over time. Intermittent or chronic pelvic pain is a frequent problem. A common cause of dyspareunia, or pain during intercourse, is vaginal or cervical blockage. Additional signs and symptoms include infertility, which is caused by mechanical disruption of sperm or egg transport, and irregular or heavy menstrual flow, which is often linked to fibroids or endometriosis. A mass in the abdomen or pelvis may occasionally be felt or identified by imaging. Urinary symptoms including discomfort, urgency, or retention may also arise if the obstruction affects nearby urinary structures.[6-8]

Diagnosis

A number of imaging and clinical techniques are used in the diagnosis, such as pelvic ultrasound, magnetic resonance imaging (MRI) for a thorough anatomical assessment, hysterosalpingography for uterine cavity and tubal patency assessment, and a physical pelvic examination to identify any internal or exterior structural problems.

Clinical Management

Surgical correction, such as septum excision, neovaginal formation and hymenotomy when necessary, is the mainstay of management options. Hysteroscopic adhesiolysis is used to treat intrauterine adhesions, and hormonal therapy is then administered to stop them from recurring. Physical and psychological aspects of genital tract abnormalities must be addressed in their management. A multidisciplinary approach is necessary, ideally involving experienced surgeons, qualified nurses, and a reproductive psychologist.

Patients should be gradually introduced to the goal and practice of vaginal or introital dilatation if it is part of the treatment plan. This is because early acquaintance with the procedure increases the likelihood of a successful outcome. Establishing trust and elucidating treatment plans are two benefits of preoperative talks between the patient and surgical team. In the end, to maximize both functional and psychological outcomes, thorough emotional and medical assistance during the preoperative phase is crucial. Long-term repercussions may result from inadequate attention to these areas.[7-9]

Surgical Management

The first step is to ascertain whether surgery is actually required and, if so, when it would be best to do it. Surgery can frequently be delayed until the patient is more emotionally and physically mature, which usually results in better outcomes because of more cooperation and understanding, provided there are no symptoms or functional issues. Preoperative dilatation can shorten the distance between structures, which facilitates the surgery in some situations, particularly when joining a lower and higher vaginal segment. A comprehensive preoperative evaluation and readiness for intraoperative surprises are crucial because to the frequently unpredictable nature of

congenital abnormalities. Since the first effort frequently offers the best chance for a successful correction, surgery should never be hurried. It could be necessary to stage some procedures. Using a hard rectal device and an abdominal ultrasonography probe during vaginal procedures can help to prevent damage of the bladder and rectum.

Postoperative Care

The majority of reproductive system obstructive abnormalities can be surgically corrected and positive results are possible. However, continued, careful care is necessary for postoperative success, especially in situations needing vaginal reconstruction. Consistent use of molds and dilators is necessary to avoid neo-vaginal constriction or closure. Before switching to regular dilatation, molds may be retained for a few weeks at first. In these situations, the psychologist's and nurse's ongoing support and oversight are crucial. Long-term cooperation and perseverance are needed to preserve the restored tract's integrity and functionality.[8-10]

CONCLUSION

Congenital or acquired, obstructive lesions of the female reproductive system can have a major effect on sexual, reproductive, and menstrual health. Developmental errors like incomplete duct fusion or agenesis cause congenital deformities, whereas infections, surgeries, trauma, or pathological diseases like fibroids and endometriosis cause acquired lesions. Symptoms from infertility and dyspareunia to amenorrhea and pelvic pain may result from these blockages. For prompt management, an accurate diagnosis using clinical and imaging modalities is crucial. Frequently, hormone medication, emotional support, and surgical intervention are needed for treatment. A multidisciplinary, patient-centered strategy that combines long-term follow-up, emotional support and surgical precision guarantees the best possible functional and psychological results.

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