Management of Iatrogenic Rectourinary Fistula

Essay

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بسم الله الرحمن الرحيم

قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا

عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ

صدق الله العظيم

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I would like to dedicate this Essay to my Father and my Mother; to them I will never find adequate words to express my gratitude.

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List of Abbreviation

CT	: Computed tomographic
DRE	: Digital rectal examination
GIT	: Gastrointestinal tract
MRI	: Magnetic resonance imaging
RUF	: Rectourinary fistula
RUG	: Retrograde urethrogram
US	: Ultrasound
VCUG	: Voiding cystourethrogram

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Introduction

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Rectourinary fistula is a subtype of entero-urinary fistula which is abnormal fistulous tract between the urinary tract and the rectum. It can be congenital or acquired. Congenital rectourinary fistula is usually associated with imperforate anus ***(Hearn-Stebbins et al., 1991; Barry and Auldist, 1974)***. Acquired rectourinary fistula may occur in the male under a variety of clinical circumstances, including prostatectomy for benign or malignant disease, cryotherapy, pelvic radiotherapy, anorectal surgery, external penetrating trauma ***(Al-Ali et al., 1997; Bukowski et al., 1995)***, urethral instrumentation ***(Thompson and Marx, 1990)***, locally advanced prostatic or rectal malignant disease, infection such as tuberculosis ***(Okaneya et al., 1988)*** or ruptured prostatic abscess, and inflammatory disease such as Crohn's disease ***(Fazio et al., 1987; Stamler et al., 1985)***.

The presentation of rectourinary fistula is variable. Symptoms may include fecaluria, hematuria, urinary tract infection, nausea, vomiting, and fever. Peritonitis and sepsis may occur as well. Digital rectal examination often permits palpation of the fistula track along the anterior rectal wall.

Cystoscopy and sigmoidoscopy ***(Shin et al., 2000)*** visualize the fistula track in the majority of cases and provide a

mechanism for biopsy. In patients with a history of pelvic malignant disease, biopsy of the fistula is suggested to evaluate for a local recurrence of the tumor ***(Shin et al., 2000)***. Voiding cystourethrography or retrograde urethrography usually provides a definitive diagnosis of rectourinary fistula.The exact anatomic location and size of the fistula are also usually well delineated on voiding cystourethrography or retrograde urethrography, providing important information for surgical planning.

Most rectourinary fistulas will require surgical repair ***(Bukowski et al., 1995; Stephenson and Middleton, 1996)***, although it is clear that some will heal with conservative management. Rectourinay fistula after open or laparoscopic prostatectomy may heal spontaneously with catheter drainage, bowel rest, and intravenous hyperalimentation. In some cases, fecal diversion is necessary.

Suggested guidelines for cases in which a one-stage approach might be appropriate include surgically induced, small rectourinary fistulas not associated with infection, abscess, or a poor bowel preparation ***(Wood and Middleton, 1990)***. Staged repairs might be considered in cases of large fistulas and those associated with radiation therapy, uncontrolled local or systemic infection, immunocompromised states, or inadequate bowel preparation at the time of definitive repair ***(Stephenson and Middleton, 1996)***.

Aim of the Work