

## Archives of Clinical Case Reports

## Case Report

# Convalescent Rehabilitation after Hemiarthroplasty for a Displaced Femoral Neck Fracture in a Sexually Active Older Adult Gay Man

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## Abstract

**Background:** Our patients include individuals who are lesbian, gay, bisexual, and transgender and comprise between 0.5% and 10% of the total population.

**Case Presentation:** A 79-year-old man was transferred to our convalescent rehabilitation ward after undergoing hemiarthroplasty (HA) to treat a right-sided displaced femoral neck fracture. His rehabilitation protocol included strengthening of the lower limb muscles; balance, gait, and endurance exercises; and activities of daily living (ADL) training. Because he was a sexually active gay man who engaged in receptive anal intercourse (RAI), we also recommended positions for sexual intercourse to prevent dislocation.

**Discussion and Conclusion:** Dislocation is a serious complication after HA and total hip arthroplasty (THA) that may be induced by sexual intercourse in elderly patients. In convalescent rehabilitation, guidance regarding sexual activity should be provided to all patients undergoing HA and/or THA to prevent dislocation, regardless of their age and sex. In men undergoing HA and/or THA, sexual positions of both men and women should be explained to prevent dislocation as these patients might be sexually active gay or bisexual men who engage in RAI.

**Keywords:** femoral neck fracture; hemiarthroplasty; rehabilitation; gay; sexual positioning

## Introduction

Sexual minorities are generally categorized into two groups according to their sexual orientation and/or gender identity, namely, (1) lesbian, gay, and bisexual (LGB) and (2) transgender. The sexual orientation of LGB people includes attraction to individuals of the same sex as their own or to individuals of both genders. However, the internal gender identity or gender expression of transgender people differs from their natal sex. LGB and transgender (LGBT) people have comprised between 0.5% and 10% of the total population [1-3]. Ikuta et al. [4] reported LGBT prevalence of 2.7%, 0.5%, 5.3%, and 0.8%, respectively, among Japanese students in a Japanese university. Thus, older Japanese LGBT individuals are estimated to comprise similar proportions in the population.

LGBT people often experience stigma and discrimination, which are negatively associated with health and life expectancy. Older LGBT adults often distrust the medical system and/or care providers [5,6]. In particular, they find it frightening to receive care from a homophobic provider. Because of these apprehensions, they avoid visiting physicians, which adversely affects their physical and mental health. Sexual minorities living in neighborhoods with high levels of anti-gay prejudice have a 12-year lower life expectancy than those living in low-prejudice communities [7]. The physical and mental health-related quality of life (QOL) of these populations should be maintained by any means necessary as good QOL is important for successful aging [2,3].

Herein, we present the case of a sexually active older adult who engaged in receptive anal intercourse (RAI) and who underwent hemiarthroplasty (HA) for the treatment of a displaced femoral neck fracture (FNF). To improve his QOL, we trained him to recognize the risk of dislocation during his activities of daily living (ADL), including sexual activity.

## Case Presentation

### Current Hospitalization

A 79-year-old man experienced a right-sided displaced FNF following a fall in front of his house. His height and weight were 150 cm and 45.5 kg, respectively. Three days after the fracture, he

underwent right-sided bipolar HA using the posterior approach. One month postoperatively, he was transferred to our convalescent rehabilitation ward (CRW) for rehabilitation.

### Prior Hospitalization

The patient had previously been admitted to our CRW twice: once after anterior cervical fusion for the treatment of a cervical disc hernia and once after lumbar laminoplasty for the treatment of a lumbar disc hernia. During the previous admissions, nursing staff had observed him engaging in oral sex with his boyfriend in his hospital room. While we disregarded the first instance of oral sex, we confronted him after the second instance not due to the homosexual nature of the act but rather due to the sexual act itself. Thus, we had identified him as being gay or bisexual.

### Sexual Orientation

During the current hospitalization, we asked him two questions: 1) whether he was sexually active and 2) which position he preferred when having sex with men. Because the medical staff strove to avoid anti-gay prejudice or a homophobic attitude from the first day of hospitalization, he confided to us that he was a sexually active gay person, that he only engaged in RAI, and wanted to have sex with men after discharge from the hospital.

### Convalescent Rehabilitation

Before his fracture of the right femoral neck in a fall, the patient had worked at a bar at night. His workplace was far from his house and he commuted by walking using a T-cane. Therefore, he wanted to be able to walk long distances and negotiate stairs at the time of discharge from the CRW. On admission to the CRW, he could walk 50 m with a walker and was independent in his self-care activities. Therefore, his convalescent rehabilitation mainly included lower limb muscle strengthening; balance, gait, and endurance exercises; and ADL training

The orthopedist performing the HA provided us with accurate information about the hip positions that would induce hip prosthesis dislocation; namely, >90° of flexion, >20° of adduction, and/or >45° of internal rotation. Conversely, the range of motion in his

right hip joint was 80° of flexion and 10° of both adduction and internal rotation by passive movement, all of which could prevent hip dislocation. However, his preferred sexual positions were as shown in Figures 1A and 1B. In this case, the position shown in Figure 1A would be preferable because the position shown in Figure 1B might have been associated with a risk of dislocation because of excessive hip joint flexion. Thus, the patient was instructed on how to prevent dislocation during both RAI and ADLs.

After 2 months of convalescent rehabilitation, he could walk 2 km using a T-cane and walk up and down stairs with railing support. During the current hospitalization, hip dislocation did not occur. In addition, he did not engage in sexual activities with his boyfriend. Since he was nearly independent in his ADLs, the patient was discharged to his home.

## Discussion

HA and total hip arthroplasty (THA) are widely accepted treatments for displaced FNFs in elderly patients. THA provides better functional outcomes than HA in self-sufficient and physically active patients. However, HA is commonly performed to treat displaced FNFs in older adults with cognitive impairments and limited activities because the procedure requires a shorter operation time and results in less blood loss, among other benefits [8-10]. Dislocation is a serious complication that can occur after HA and THA; the occurrence rates within 1 year are similar between HA and THA in patients with FNF who are older than 65 years, although HA has a lower dislocation rate compared to THA [8-10]. In patients older than 75 years who are independent in their ADLs, the risk of developing dislocation within 1 year of surgery should be considered the same between HA and THA [8,9]. Moreover, dislocation is more likely to occur during sexual intercourse in the first year after THA in women than in men [11,12]. Thus, sexual intercourse may induce dislocation in elderly women with HA.

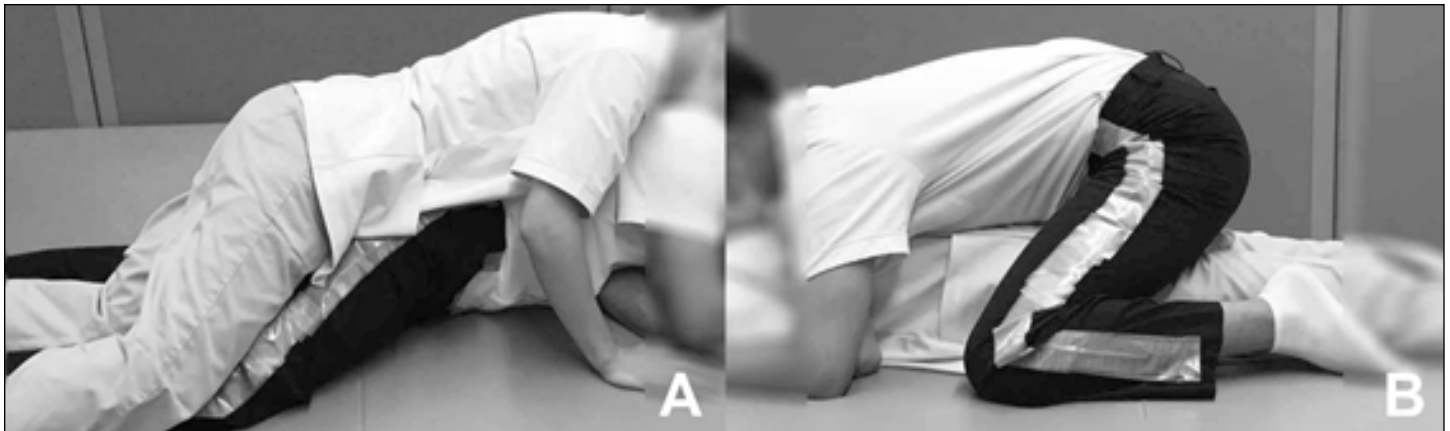
As is the case with heterosexual individuals, older gay adults require sexual intercourse to maintain their health [5]. However, the sexual roles of men who have sex with men (MSM) vary and may

change with changes in masculinity, power, and/or partner [13]. Masculine and/or powerful gay men tend to practice insertive anal intercourse (IAI). Because almost half of MSM may practice both IAI and RAI (versatile MSM), recommendations for safe positioning for sexual intercourse in older gay adults should consider this versatility. Our patient originally tended to practice RAI because of his small stature. He also reported having experienced erectile dysfunction following hormone therapy for prostate cancer; thus, he was only able to engage in RAI [14]. He was eager to perform RAI after discharge from our CRW and we had to instruct him on preventing dislocation during sexual intercourse because his sexual position would be similar to that of a woman during heterosexual intercourse. Charbonnier et al. [15] reported the hip joint is likely to be flexed beyond 90° in a sexual position similar to that shown in Figure 1B, whereas the movement of the hip joint would stay within the safe limits in a position similar to that in Figure 1A. Accordingly, we recommended the position shown in Figure 1A for sexual intercourse with men.

In addition to sexual intercourse, social support and LGBT-friendly services are important for improving the health of older LGBT adults [3,5]. Although LGBT people have recently gradually gained acceptance in Japan, most healthcare and social service providers assume that older adults are not LGBT individuals, which could cause older LGBT adults to distrust the healthcare system [4-6]. We should always remember that patients might be LGBT. Moreover, when a patient's sexual orientation and/or gender identity is revealed, it should be accepted as a part of sexual diversity and should never be judged negatively.

## Conclusion

Since convalescent rehabilitation is performed to improve independence in ADLs, guidance on sexual activity should be provided to patients undergoing HA and/or THA regardless of age and sex. Patients might be LGBT; their sexual orientation and gender identity must be accepted as a part of sexual diversity. Acknowledging this, the sexual position of women could be explained to prevent dislocation in men undergoing HA and/or THA.



**Figure 1:** The patient favored two positions during sexual intercourse. The man wearing black pants with white lines represents the patient. The patient preferred to engage in receptive anal intercourse with his hip joints in (A) extension or (B) excessive flexion. Position B should be avoided due to the risk of dislocation.

### Informed Consent Statement

Written informed consent for the publication of this case report was obtained from the patient.

### Conflicts of Interest

The authors declare no conflicts of interest.

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