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Incidence of fecal incontinence and sphincter disruption in patients with anal intercourse (Review of 40 women)

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Abstract:

The lifetime of anal intercourse increased from 27% to 36%. It has been widely assumed to be one of the major causes of fecal incontinence. Heterosexual anal intercourse is rarely discussed in the scientific literature.

In this descriptive cross-sectional observational study, we reviewed fecal incontinency in patients who came to Tehran Legal Organization from January to November 2019 and have complaints of AnoReceptive Intercourse(ARI).

The mean age of patients was 29.18±10.5 years old. The mean Wexner score was 4.78±4.6. The most common type of anal intercourse was unwanted (47%). Thirty-two patients of 40 patients had a gap in their external anal sphincter in endo anal sonography. Stool consistency divided into 3 groups as the most common was soft (70%). There was also no difference in Wexner score between patients who had gaps in their ext anal sphincter and those who had not. In this study we understood the prevalence of gap is high among patients with ARI (82.6%) and the most common form of incontinency was to a liquid form of stool, although the mean Wexner score is 4.7 in this group.

Introduction:

Fecal incontinence, the involuntary loss of rectal contents at a socially inappropriate time or place is an underappreciated condition that affects at least2% of adults in the community. The

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prevalence in elderly people is up to 15% and higher still among those living in residential or nursing homes.[1,2, 3]

Although the prevalence of fecal incontinence is greater in women compared with men and in elderly subjects compared with younger subjects.[4]

Even though there are scoring systems that are commonly used (e.g Wexner /CCF incontinence score/fecal incontinence quality of life(FIQL) score) these often do no physiologic components to accurately reflect the clinical severity. Most are based on a subjective patient-reported assessment of severity and frequency.[5]

Heterosexual anal intercourse is rarely discussed in the scientific literature. A review of surveys of sexual practices suggests heterosexual anal intercourse is far more common the generally realized; more than 10% of the American women and their male consorts engaging in the act with some regularity [6].

The lifetime of anal intercourse increased from 27% to 36% [7].

Anal intercourse has been widely assumed to be one of the major causes of fecal incontinence and since it is commonly believed that gay men practice anal intercourse more frequently, they are also assumed to be at greater risk for fecal incontinence than heterosexuals or homosexual women.[8,9,10]

In this study, we aimed to evaluate the presence of sphincter disruption and incidence of fecal incontinence among women who referred to the acolorectal ward of Rasool Hospital from Legal institution and have complaints from anal intercourse (wanted or unwanted) with their partners

METHOD:

This study was a descriptive cross-sectional observational study in which we reviewed the fecal incontinency in patients who came to Tehran Legal Organization from January 2019 to November 2019 and have complaints of AnoReceptive Intercourse (ARI) from their partners. The exclusion criteria in this study were patients who had surgery in the anorectal area because of anorectal diseases such as hemorrhoids, fissure, prolapse, perianal fistula, history of perianal trauma, history of cerebrovascular accident(CVA), prolonged diabetes, Multiple Sclerosis, Dementia, Spinal cord injury, rectal or anal cancer, anticonvulsive drugs, and history of inflammatory bowel disease(IBD).

The first group of variables we evaluated in the study was age, gender, times of delivery, type of delivery, Wexner score, presence of descent, ulcer, internal or external prolapsed, skin tag, fissure, and hemorrhoids.

All the patients have undergone endoanal ultrasound by the same colorectal surgeon in the colorectal ward of Rasool Hospital. The second group of variables was the information of stool consistency, defecation number in a week, presence of urge incontinence, fecal incontinence in different forms of stool(liquid/solid/flatten/…) presence of sphincter gap in endoanal sonography.

The third group of variables were the information of anal intercourse: age of 1st anal intercourse, wanted or unwanted, number of partners, frequency of anal intercourse per month.

ISSN 2515-8260 Volume 08, Issue 03, 2021

Statistical analysis was performed with SPSS.V16 .we reported the descriptive analysis of the above variables and also used independent sample T_test, One Way ANOVA, Correlation, and Chi_square tests.

RESULTS:

In this study, we had 40 patients, and the mean age of them was 29.18±10.5 years old. The mean delivery time was 0.68. The mean Wexner score was 4.78±4.6. The mean age at first anal intercourse was 22.9±6.14 years. Thirty-eight of our cases had one partner and two of them had multiple variables. Other descriptive variables are listed in the below table. (Table 1)

		Age	delivery time	wexner number	age of first anal intercourse	partner number	frequency	defecation number in week
N	Valid	40	40	40	39	37	39	39
	Missing	0	0	0	1	3	1	1
Mean		29.18	.68	4.78	22.92	1.08	2.28	5.31
Std. Deviation		10.541	1.047	4.633	6.140	.363	1.999	2.214
Range		49	4	12	23	2	6	8
Minimum		11	0	0	10	1	0	0
Maximum		60	4	12	33	3	6	8

Sixty-five percent of the cases had no history of delivery, where 12.5% of them had cession and 12.5% had NVD +episiotomy.(table2)

Table 2-Delivery type

		Frequency	Percent
	no delivery	26	65.0
	Cesarean	5	12.5
	NVD	2	5.0
	cesarian+NVD	1	2.5
	NVD+episiotomy	5	12.5
	cesarian+episiotomy	1	2.5
	Total	40	100.0

ISSN 2515-8260 Volume 08, Issue 03, 2021

Eight of the patients (20%) had descent and sixteen cases had internal prolapse .(40%).

Thirty-two patients of 40 patients had a gap in their external anal sphincter in endo anal sonography. Among patients, 17.5% had no external sphincter gap and 12.5% had gap site in 6 to 9 and 9 to 12 o'clock in a lithotomy position. Seven of the patients (17.5%) had a sphincter gap in both the right and left sides of the anal external sphincter. Overall gap sites are more common at 12 6 o'clock of lithotomy position.

The most common type of anal intercourse was unwanted (47%).(table 3)

Table 3-different types of anal intercourse

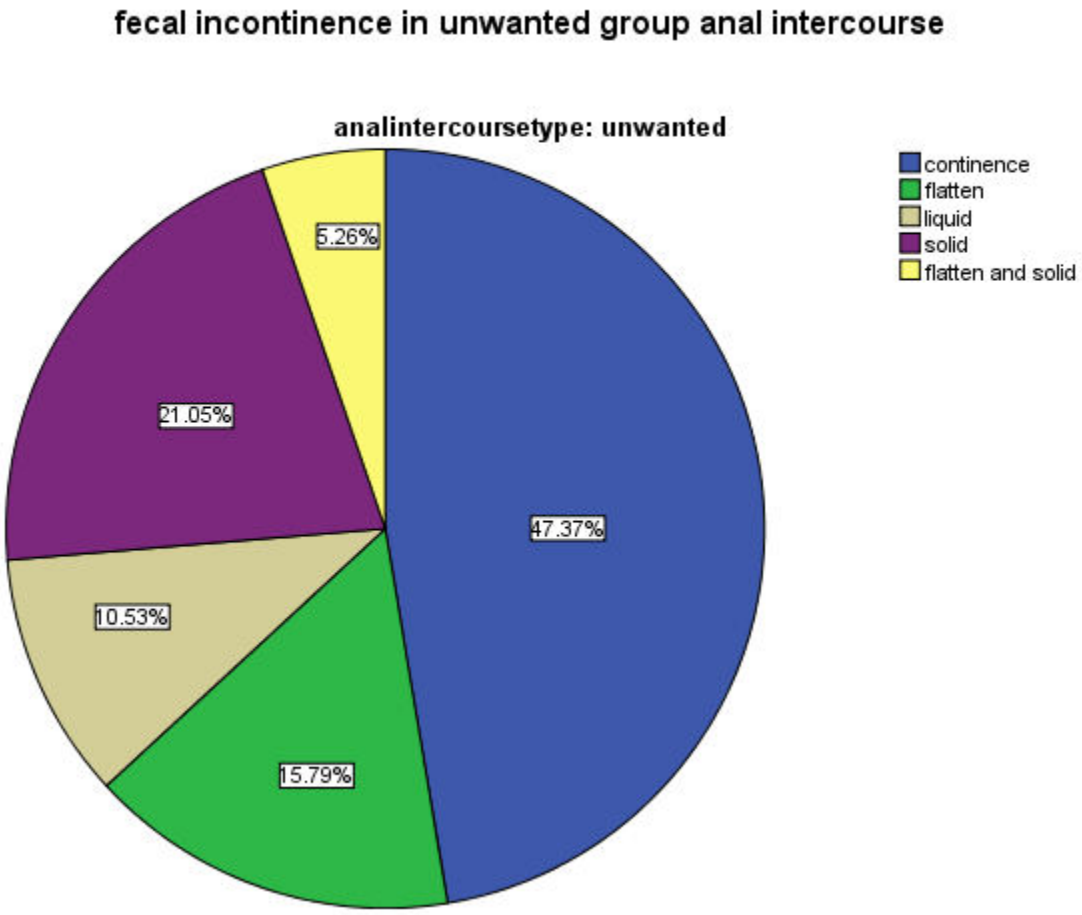
		Frequency	Percent
	Constant	2	5.0
	Unwanted	19	47.5
	Wanted	4	10.0
	constant and unwanted	7	17.5
	constant and wanted	6	15.0
	Total	38	95.0
Missing		2	5.0
Total		40	100.0

Stool consistency divided into 3 groups as the most common was soft (70%). Although half of the patients had urge incontinency,47.5% of patients were continent which 52.5% of the patients had degrees of incontinency. The most common form of incontinency was to the liquid form of stool. Incontinency to other forms of stool(solid and flatten)was equal (15%) .

Despite the above data, in people who had unwanted anal intercourse, the most common type of incontinency was in the solid form of stool(21%).In this group incontinency to flatten and liquid form of stool was 15% and 10% respectively. Sixty-three percent of this group (unwanted) had no urge incontinence and fifteen (78%) of them had a gap in the external sphincter.(Figure=1)

ISSN 2515-8260 Volume 08, Issue 03, 2021

Figure 1-Fecal incontinence in unwanted anal intercourse group



Four of forty patients had only wanted anoreceptive intercourse which all of them had a gap site. Among the unwanted group, 86.2% had a gap site in their sphincter. In patients who had constant and wanted anal sex, 16.7% of them hadn't any gap site.

There was a statistical correlation between internal prolapsed and the presence of a gap in the anal sphincter (p_value:0.013) . Also, there was a statistical correlation presence of a gap and the type of anal intercourse (Pvalue:0.022).

According to One way ANOVA, there was no statistical difference in Wexner score between different types of anal sex (wanted, unwanted, constant). There was also no difference in Wexner score between patients who had gaps in their ext anal sphincter and those who had not. There was also no correlation between age and Wexner score (P-value: 0.34) .

Discussion:

ISSN 2515-8260 Volume 08, Issue 03, 2021

In our study, only 17.5% of patients had no gap in the external sphincter and 82.5% had a gap in their anal sphincter. Although the mean Wexner score was 4.7; most(82.5%)of patients had a gap in their ext anal sphincter. The most common form of incontinency was to the liquid form of stool.

Two studies were conducted in 1993 and 1994 have been much touted as definitive proof of the dangers of anal intercourse.[8,9]

Miles, Allen_Mersh &Wastell (1993) reported in their study a 35% incidence of incontinence among males who practice anal intercourse.[9]

Wngel.Kamm & Bartam (1995) also reported that seven of their study participants suffered internal and external anal sphincter disruption and fecal incontinence as a result of peno anal penetration.[9]

Another finding in our study was the difference of incontinency according to the type of anal intercourse which is a group of unwanted anal sex the most common form of incontinency was to the solid form of stool.

Despite findings of our study; in Chan,Rose,Mitroni &Wald (1997) study, the researchers found that neither increased incidence of fecal incontinence nor anal sphincter disruption in their study population (anoreceptive homosexual males) compared with controls (non-anoreceptove heterosexual males).[9]

By comparing existing studies on anal sex and fecal incontinence,it is apparent that there is a significant difference between unwanted anal penetration and consented intercourse as in our study there was a statistical correlation between the presence of anal sphincter disruption and the type of anal intercourse(pvalue:0.022).

In this study, despite previous studies, there was no correlation between age and Wexner score, this may be because of our population as the mean age of them were 29.18 years old.

Another point of view is that most of the incontinency scores are subjective and are in relation to the religion and culture of different societies so the prevalence of fecal incontinency may have a long span in countries all over the world.

All the patients we observed, were referred from the legal organization and this point can make a bias, because many of the women who suffer from anoreceptive intercourse(ARI) may not go to the organization for the culture in our country.

In this study, we just described the observations of degrees of sphincter disruption in women with complaints of post intercourse and the limitation of this study was that we didn't have a control group. We just evaluated the patients who had complaints, we started another study in which we choose the patients of the general population having wanted anal intercourse. The results of that study and the comparison will be presented early in future weeks.

An interesting finding is that the most common part of external sphincter disruption is in the 12 to 6 o'clock lithotomy position. we can use this point in the biofeedback treatment of fecal incontinency in these patients.

ISSN 2515-8260 Volume 08, Issue 03, 2021

Conclusion:

In this study we understood the prevalence of gap is high among patients with ARI (82.6%) and the most common form of incontinency was to the liquid form of stool, although the mean Wexner score is 4.7 in this group.

Abbreviation:

Anoreceptive intercourse(ARI)

Fecal incontinence quality of life(FIQL)

Inflammatory bowel disease(IBD).

Cerebrovascular accident(CVA)

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Competing interest: none declared

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