

LONG TIME FOLLOW-UP AFTER VAGINAL RECONSTRUCTION FOLLOWING ALLOGENEIC HEMATOPOIETIC STEM CELL TRANSPLANTATION.

Hypothesis / aims of study

Chronic graft-versus-host disease (cGvHD) is the most common late complication following allogeneic hematopoietic stem cell transplantation (allo-HSCT). The incidence of genital GvHD vary from 35% at 1 year observation after allo-HSCT, to 49% at 2 years

The aim of this study was to present long time follow-up data collected from 2 female patients who suffered from severe genital GvHD – namely, complete obliteration of vagina after allo-HSCT, and had successful vaginal reconstruction (the first in 2013, the second in 2012) in our Department.

Study design, materials and methods

Patient 1- 38 years old, was admitted to our Department in January 2013 due to complete vaginal obliteration after myeloablative therapy. She underwent complete vaginal reconstruction and cervical dilatation under ultrasound control. A vaginal dilator covered with Cyclosporine ointment 0,2% was inserted into the vagina for 7 days post-operation, together with a five-day antibiotic prophylactic treatment. In addition, from the second day post-procedure, 50ug Estradiol patches, every 4 days, were started.

Patient 2- 38 years old, was admitted to our Department in July 2012 due to complete vaginal obliteration after hematologic treatment of leukemia. We performed a vaginal reconstruction in a manner analogous to that described above. Severity scoring for female genital cGvHD disease according to Stratton revealed Grade III (severe) disease before surgery in both cases.

In January 2017, both patients were asked to return for an extended gynecological check-up. Both used hormonal replacement therapy without any vasomotor symptoms due to premature ovarian failure (POF). In order to objectively assess patients' health, specific questionnaires were used before and at follow-up visits post-operation: The Short Form (36) Health Survey (SF-36v2 - standardized, validated instrument to measure quality of life; Female Sexual Function Index (FSFI) - enables an assessment of sexual function over a previous 4 week period; Incontinence Impact Questionnaire (IIQ-7) - measures the impact of urinary incontinence on activities, roles, and emotional states; and Urogenital Distress Inventory (UDI-6) - measures how troubling the symptoms are).

Results

Four years post-procedure, by way of bimanual physical examination, normal vaginal length, elasticity and capacity were indicated. Both patients were sexually active without any compromise due to vaginal obliteration. Vaginal sonography revealed no abnormalities.

| | Domains | | | | | | | | Categories | |
|------------------|----------------------|---------------|-------------|----------------|----------|--------------------|----------------|---------------|----------------------------|--------------------------|
| | Physical functioning | Role physical | Bodily pain | General health | Vitality | Social functioning | Role emotional | Mental health | Physical Component Summary | Mental Component Summary |
| Population | 83.3 | 82.5 | 71.3 | 70.8 | 58.3 | 84.3 | 87.4 | 74.9 | 50 | 50 |
| Patient 1 before | 85 | 87,5 | 100 | 42 | 43,75 | 75 | 91,67 | 40 | 55,92 | 38,75 |
| Patient 1 after | 85 | 100 | 100 | 42 | 56,25 | 100 | 100 | 70 | 53,46 | 51,42 |
| Patient 2 before | 95 | 87,5 | 100 | 35 | 56,25 | 87,5 | 83,33 | 50 | 56,36 | 41,7 |
| Patient 2 after | 100 | 100 | 100 | 90 | 87,5 | 100 | 100 | 95 | 59,13 | 59,59 |

Table 1. Results of The Short Form (36) Health Survey: two women (patient 1 and 2) after vaginal reconstruction surgery

| DOMAIN | PATIENT | RESULT BEFORE | RESULT AFTER | MIN RESULT | MAX RESULT |
|--------------|---------|---------------|--------------|------------|------------|
| desire | 1 | 4.2 | 4.2 | 1.2 | 6.0 |
| | 2 | 4.2 | 3.6 | | |
| arousal | 1 | 0 | 5.1 | 0 | 6.0 |
| | 2 | 0 | 5.4 | | |
| lubrication | 1 | 0 | 3.6 | 0 | 6.0 |
| | 2 | 0 | 6.0 | | |
| orgasm | 1 | 0 | 4.0 | 0 | 6.0 |
| | 2 | 0 | 6.0 | | |
| satisfaction | 1 | 0.8 | 4.8 | 0.8 | 6.0 |
| | 2 | 0.8 | 6.0 | | |
| pain | 1 | 0 | 5.2 | 0 | 6.0 |
| | 2 | 0 | 6.0 | | |

Table 2. Results of the Female Sexual Function Index questionnaire: two women (patient 1 and 2) after vaginal reconstruction surgery

| PATIENT | UDI-6 | | IIQ-7 | |
|---------|--------|-------|--------|-------|
| | BEFORE | AFTER | BEFORE | AFTER |
| 1 | 199.8 | 199.8 | 99.9 | 99.9 |
| 2 | 66.6 | 66.6 | 0 | 0 |

Table 3. Results of Urogenital Distress Inventory (UDI-6) and , Incontinence Impact Questionnaire (IIQ-7) in women (patient 1 and 2) after vaginal reconstruction surgery

Interpretation of results

Both patients declare no statistically important changes in the physical component summary (PCS), and statistically important changes in the mental component summary (MCS) of SF-36v2.

FSFI results showed important changes in the sexual life quality of both patients.

IIQ-7 and UDI-6 results show no change in continence status.

Concluding message

Vaginal reconstruction surgery can be offered to any patients suffering from obliteration. Our results show that this therapy enables patients to have normal sexual lives without compromising their continence status.

Disclosures

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