FEMALE GENITAL GRAFT-VERSUS-HOST DISEASE

Diagnosis, treatment, incidence, long-term prevalence, and impact on androgen hormones and sexual function

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ABSTRACT

BACKGROUND. Chronic graft-versus-host disease (cGvHD) is the major cause of morbidity after allogeneic hematopoietic stem cell transplantation (alloSCT), and contributes to non-relapse mortality. Caused by donor cells, cGvHD is a multi-organ syndrome involving tissue inflammation and fibrosis.
AIMS. To describe female genital cGvHD; its symptoms, signs, prevalence, incidence, severity, relationship to androgen levels, and long-term outcome.
STUDIES AND PARTICIPATING WOMEN. ***Study I***: A cross-sectional, population-based study (n=42), median 80 (13-148) months after alloSCT. ***Study II***. A cohort study (n=65), 55 (3-194) months after alloSCT, controls (n=140). ***Study III***, n=41, ≤36 months post alloSCT. ***Study IV***, n=38, 174 (120-232) months post alloSCT.
RESULTS. ***Study I:*** *Cross-sectional*. Prevalence of genital cGvHD was 52%. *Symptoms, signs*: dryness, smarting pain, dyspareunia; vaginal stenosis (n=9).
Study II: *Androgens and cGvHD*. Corticosteroids and cGvHD were associated with low androgens.
Study III: *Prospective study*. Cumulative incidence of genital cGvHD 66%, extra-genital cGvHD 76%, at 3 years. Early diagnostic signs: lichen planus-like signs, and synechiae, with no symptoms in 30 %. Vaginal total stenoses (n=2). Genital cGvHD could vary over time.
Study IV: *Follow-up study on women from Study 1 (n=38).* Genital cGvHD prevalence 58%, no longer showing genital cGvHD (n=3), newly developed genital cGvHD (n=2). Prevalence and grade of cGvHD similar to Study I.
CONCLUSIONS. Female genital mucosa is a major target for cGvHD. The incidence of genital cGvHD is high, and the prevalence does not decrease over time. Fibrotic signs may not disappear. However, treatment may alleviate symptoms and signs. Independent of symptoms, early gynecologic surveillance is important. Close contact between gynecologist and hematologist, permitting early diagnosis and local and/or systemic treatment may diminish the risk of developing severe fibrosis. Chronic GvHD, especially in combination with glucocorticoid treatment, is associated with low androgens and may contribute to deteriorated quality of life and sexual health.

Keywords: allogeneic stem cell transplantation, Chronic Graft-versus-Host Disease, female genitalia, dyspareunia, genital chronic Graft-versus-Host Disease, diagnostic, sexual dysfunction, treatment, long-term, androgens in women, glucocorticosteroids.

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I. Smith Knutsson E, Björk Y, Broman AK, Helström L, Levin Jakobsen AM, Nilsson O, Sundfeldt K and Brune M. Genital chronic Graft-versus-Host Disease in females: a cross-sectional study. Biol Blood Marrow Transplant. 2014; 20:806-11.

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