

Severe coital injury after Frank's creation of a neovagina

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Summary

A neovagina was created by the Frank's dilatation method in a girl with vaginal agenesis. At the first coital attempt complete laceration of the cul de sac with copious bleeding occurred. Daily application of estrogen cream was the only therapy until complete healing after four weeks. Possible causes and therapeutic approaches are discussed.

Key words: Muellierian anomalies; Vaginal agenesis, Neovagina, Sexual injury.

Introduction

Since the first description in 1559 [1], vaginal agenesis has been a matter of discussion and research to allow normal sexual activity in these patients [2]. Many different surgical approaches to the problem of vaginal agenesis have been developed in the last two centuries until the recently proposed laparoscopic approach [3] derived from an evolution of the Vecchietti surgical procedure [4]. The non-surgical therapy is mostly based on the original method proposed by Frank [5]. Cases of neovagina formation by coitus are also described [6].

Vaginal agenesis is commonly related to the Mayer-von Rokitansky-Kuester-Hauser syndrome although rarely associated to cervical atresia with a functioning uterus [7].

A case of severe coital injury after Frank's creation of a neovagina in a girl with vaginal agenesis with cervical atresia and previous hysterectomy is reported. As far as we know this is an until now undescribed condition.

Case Report

D. G., born in 1976, was first operated on a few days after birth because of immature teratoma of the right kidney and nephrectomy was performed. At the age of two months she was operated on again for complications from the first intervention. In 1987 she presented elsewhere for abdominal pain and a pelvic mass was found. The diagnosis of haematometra with absent cervix and vagina was made and she underwent a hysterectomy.

In 1995 she first came to our attention asking for the possibility of vaginal reconstruction. Phenotype was normal female. At inspection normal external genitals were observed, with the urethral orifice slightly downwardly displaced, typical of the Mayer-von-Rokitansky-Kuester-Hauser syndrome. The vagina was absent. Only a small dimple of 1 cm in depth was present. The previous surgical interventions were considered as contraindications to perform a laparoscopic creation of a neovagina [3]. We discussed the possibility of using Frank's dilatation method [5]. She accepted this solution and we decided to start the procedure when intercourse would become into consideration.

In August 1997 she requested again to undergo Frank's procedure. She was instructed on this self-dilatation method using plastic dilators of different sizes progressively. At three week intervals she was checked and at the end of November a vaginal length of 6 cm was obtained. At this time the introitus permitted the introduction of two fingers and a vaginal speculum. The cul de sac was epithelized. We interrupted the procedure and advised the patient that she could have intercourse. On the 30th of December, 1997 the patient asked for a consultation. She had the first intercourse on day 26. She described it as pleasant and not painful although copious vaginal bleeding followed. The bleeding diminished progressively; at examination only scanty bleeding was observed. At speculum examination the cul de sac appeared completely lacerated and the preperitoneal fat could be clearly seen. We decided on spontaneous healing of the laceration and only an estrogenic cream was prescribed. After three weeks the patient was checked again. The laceration was completely closed and granulation tissue was present (Fig. 1). Estrogen cream was continued for two weeks. At the last follow-up the cul de sac was completely epithelized. The patient was instructed to gently approach future intercourses.

Discussion

In patients with vaginal agenesis cervical atresia and functioning uterus hysterectomy is frequently performed at puberty when the creation of a uterine vaginal tunnel

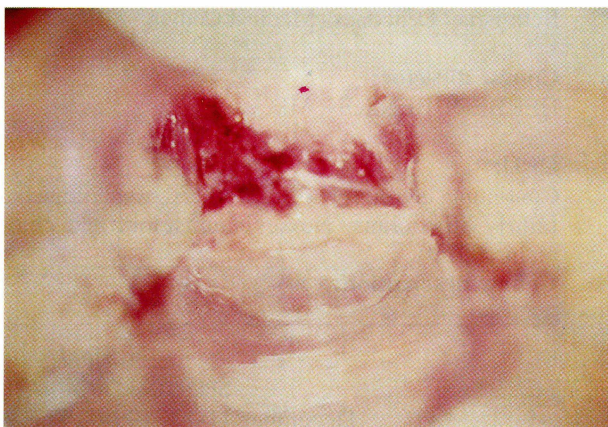


Figure 1. — Granulation tissue of the cul de sac.

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to obtain drainage of a haematometra is not possible [7], as in the reported case. After creation of a neovagina, both by surgical or dilatation methods, complications are possible. They are mostly due to stenosis of the neovagina. Prolapse of the neovagina has also been described [8]. Complete laceration of the cul de sac is an undescribed condition in these patients, as far as we know. This complication of sexual intercourse is however described in normal women [9]. Copious bleeding requiring surgical haemostasis or vaginal packing are the normal approaches in this condition. In our patient the bleeding ceased spontaneously after a few days and we preferred to wait rather than to perform any surgical procedure. Estrogen cream was prescribed to enhance vaginal epithelization.

We believe that in the presented case laceration occurred in the cul de sac because of previous surgery, which created a locus minoris resistentiae.

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