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Press-Fit® (Natural Collagen Plug) Application in Perianal Sinus Treatment

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Abstract

Objective: Although the pilonidal sinus is most commonly seen in the sacrococcygeal region, it may emerge in any region of the body, where the hairs may penetrate. The pilonidal sinus that develops in the perianal area is called 'endoanal' or 'perianal pilonidal sinus' and it is in the close neighborhood with the anal verge. In this study, our objective was to present the patients with "perianal pilonidal sinus", whom we treated with the "Natural Collagen Plug", which is mainly used for the perianal fistulae.

Materials and methods: The data of four patients, who applied to our clinic due to the perianal pilonidal sinus between June and December 2015 and treated with "natural collagen plug" after curettage, were included in the study. The characteristics of patients such as age, gender, treatment duration, complications and recurrence rates were investigated.

Findings: The mean age of the patients was 25.75 ± 3.5 years and all patients were males. The treatment was administered twice to one patient and just once to the remaining 3 patients. Only one patient developed abscess as a complication. Average recovery time was 27.5 ± 3.3 days. During the follow-up (average: 5.75 ± 1.7 months) period, the disease recurred in one patient and one patient did not recover. The success rate of the procedure was 50% even though the number of patients was very limited.

Conclusion: Although the perianal pilonidal sinus disease is a rare condition, it is difficult to treat due to the close neighborhood to the anal verge. Even the duration of healing is long and the success rate is relatively low in these patients, "natural collagen plug" application after a thorough local removal of the hairs and debridement can be taken into consideration. This method can be used safely around the anal region.

Keywords: Pilonidal sinus, collagen plaque, perianal sinus

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PERİANAL SİNÜS TEDAVİSİNDE PRESS-FİT® (DOĞAL KOLLAJEN PLUG) UYGULAMASI

ÖZET

Amaç : Pilonidal sinüs, en çok sakrokoksigeal bölgede görülmekle birlikte, vücutta kılların penetre olabileceği her bölgede oluşabilir. Perianal bölgede gelişen pilonidal sinüs ‘endoanal’ veya ‘perianal pilonidal sinüs’ olarak adlandırılır ve anal verge yakın komşuluktadır. Biz bu çalışmada esas kullanım amacı perianal fistül hastalığı olan "Doğal Kollajen Plug" uygulayarak tedavi ettiğimiz "perianal pilonidal sinüs" hastalarını sunmayı amaçladık.

Gereç-Yöntem: Kliniğimizde Haziran-Aralık 2015 tarihleri arasında perianal pilonidal sinüs nedeni ile başvuran ve lokal anestezi altında küretaj sonrası "Doğal Kollajen Plug" uygulanan 4 hastanın verileri çalışmaya alındı. Hastaların yaşı, cinsiyeti, tedavi süreleri, komplikasyonlar ve nüks oranları incelendi.

Bulgular: Hastaların yaş ortalaması 25.75 ± 3.5 yıl olup tüm hastalar erkekti. Bir hastaya 2, üç hastaya 1 kez uygulandı. Sadece bir hastada komplikasyon olarak apse gelişti. Ortalama iyileşme süresi 27.5 ± 3.3 gündü. Ortalama takip süresi 5.75 ± 1.7 ay olup bu süre zarfında 1 nüks ve 1 tane de iyileşmeyen hasta vardı. İşlemin başarı oranı hasta sayısı az olmakla birlikte %50 idi.

Sonuç: Perianal pilonidal sinüs hastalığı nadir görülmekle birlikte anal verge yakın olmasından dolayı tedavisi problem olmaktadır. Bu hastalarda iyileşme süresi uzun ve başarı oranı görece daha düşük olsa bile bu hastalarda konservatif tedavi yöntemi olarak iyi bir kıl temizliği ve debritlemeden sonra "Doğal Kollajen Plug" kullanılması düşünülebilir. Bu yöntem anal çevrede güvenle kullanılabilir.

Anahtar Kelimeler: Pilonidal sinüs, Kollajen Plak, Perianal sinüs

Introduction

Although the pilonidal sinus is most commonly seen in the sacrococcygeal region, it may emerge in any region of the body, where the hairs may penetrate. Although many surgical and conservative treatment methods have been introduced for years, none of these methods provided an ideal result. An ideal treatment method should be easy to perform and should have low complication and recurrence rates. Conservative treatment options include sclerosing agent injections, cryosurgery and collagenase administration. Regarding the surgical treatment options, there are open methods such as excision and open drop, marsupialization, incision and curettage and closed methods such as vertical excision and primary closure, oblique excision and primary closure, Karydakis method, rhomboid excision and Limberg procedure and plastic procedures (1-4).

Most of the discussions on the treatment of the disease are focused on the sacrococcygeal region, where the disease is most frequently encountered. Nevertheless, pilonidal sinus was described in many parts of the body. The pilonidal sinus, that develops in the perianal region is called 'endoanal' or 'perianal pilonidal sinus' and it is in the close neighborhood of the anal verge. This can occur in three different form; with a descending progression, a hair penetration into the perianal fistula tract or hair nesting into the completely healthy skin as the case in our patients (5,6). Treatment may be different in all three forms. In this study, our objective was to present the patients with "perianal pilonidal sinus", whom we treated with the "Natural Collagen Plug", which is mainly used for the perianal fistulae.

Materials and Methods

The data of four patients, who applied to our clinic due to the perianal pilonidal sinus between June and December 2015 and treated with “natural collagen plug” after curettage, were included in the study. The characteristics of patients such as age, gender, treatment duration, complications and recurrence rates were investigated. The sinus orifices were expanded to fit the mosquito clamp. This intervention was carried out in 3 patients with local anesthesia and in one patient under spinal anesthesia. Then the hairs were removed from the area and the tract was curetted. Then the Press-Fit® (Natural Collagen Plug) was applied with a similar procedure in perianal fistula. (**Figures 1 and 2**). Both orifices were left open. The patients were discharged on the same day. Patients were called for follow-up controls once every 3 days for the first week and thereafter once every 5 days. Patients, whose discharge ceased and symptoms improved, were considered recovered.



Figures 1 and 2 : Application of Press-Fit® in the perianal sinus

The perianal pilonidal sinus was diagnosed, if its distance to the anal verge was less than 2 cm. All patients underwent rectoscopy and MRI imaging and thus the rectum-related fistula was excluded.

Findings

Since the number of cases was limited, the patients were examined one by one. The mean age of the patients was 25.75 ± 3.5 years and all patients were males. There was no previous history of pilonidal sinus in the patients' anamnesis. The treatment was administered twice to one patient and once to the remaining 3 patients. Only one patient developed abscess as a complication. Average recovery time was 27.5 ± 3.3 days. During the follow-up (average: 5.75 ± 1.7 months) period, the disease recurred in one patient and one patient did not recover. The success rate of the procedure was 50% even though the number of patients was very limited.

Discussion

The pilonidal sinus, which is most frequently encountered in the sacrococcygeal region, may emerge rarely in the umbilical area, between the fingers, on the penis, in the axillae, in the amputation stump, in the neck, in the intermammary area and in the anal canal (3,5,6,7).

Although the perianal pilonidal sinus disease is a rare condition, it is difficult to treat due to the close neighborhood to the anal verge. There is also limited data in the literature about this subject. Conservative treatment methods such as phenol and silver nitrate application in the sacrococcygeal region may be used in these patients. However, since these substances have irritating properties, they should be used with caution because of their close location to the anal verge and sphincters (8). However, the plug does not have such an irritating effect.

Therefore, although the duration of healing is long and the success rate is low, a conservative approach like a treatment with a "natural collagen plug" after a thorough hairs removal on the area and debridement may be considered. This method can be implemented safely around the anal area. However, its cost is the biggest disadvantage of this method.

In the literature, similar to our study, most of the data about perianal pilonidal sinus depend on a limited number of patients (8-9). The study with the highest number of patients was conducted by Arslan and his colleagues, which is also the first one, which reports on an application of a conservative treatment method in the pilonidal sinus in the perianal area (8). Similar to this study, we applied natural-collagen plaque as a conservative treatment. Therefore we believe that our confirmative study, in spite of its limited number of cases, is a significant contribution to the literature.

Collagen plaques stimulate the individual's own fibroblasts in the tract and contribute to the healing process. Before the application of the plug into the pilonidal sinus, hairs in the tract should be cautiously and thoroughly. The practitioner should be sure that there is no infection and a complete debridement was carried out.

In some patients, the sacrococcygeal pilonidal sinus disease may have an orifice in the secondary perianal area. Kulaçoğlu et al. (10) reported that this group of patients might be treated effectively with total subcutaneous fistulectomy and Karydakis flap method. In another study which attempted to determine the best treatment option for pilonidal sinus disease with a perianal orifice, it was suggested that fistulectomy was the preferred treatment method (11).

Perianal area diseases can always pose a danger regarding the anal sphincter. The main principle in the treatment of the diseases in this region is to protect the anal sphincter. Therefore the obliteration of the sinus tract should be performed with care. The substances used in the conservative methods, especially crystallized phenol, cause a chemical cauterization. In our opinion, if these substances are applied to these types of sinuses in excess amounts and if there is a sphincter connection, it may cause some damage to the sphincter. This risk is relatively lower in the application of collagen plaque. We also believe that there may be the same risk in the fistulotomy/tractotomy procedures. Therefore, these interventions should be performed with great care.

In conclusion, the application of "Natural Collagen Plug" after a complete hair removal and debridement in pilonidal sinus in the perianal area is a conservative method, which is an alternative to surgical methods. In the literature, there is not yet a consensus on the treatment of the perianal pilonidal sinus and we believe that future studies will provide a significant contribution to this topic.

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