Complex anal fistula: A case report

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ABSTRACT

BACKGROUND: Anal fistula is a common benign disease, but the complex type is a difficulty in clinical work. This case featured by its long-term medical course of history and complex clinical appearance.

CASE PRESENTATION: Owning to the disease’s long-term developing, its appearance is complex and rare. Via medical imaging examinations, we made precise diagnosis as anal fistula, then performed fistulectomy to treat. The patient recovered well in post-operation time.

CONCLUSIONS: Complex anal fistula’s treatment is the key point while sticking point. Operation is the main method to treat presently and enhancing prognosis and reducing complication keep increased. Stem cells are safe and useful for treating anal fistula.

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1. Background

Anal fistula is a common benign disease, and the complex type is a difficulty in clinical work. Because fistulas of complex type may occurred in different palaces and have different relationship with anal muscles or nerve vascularis. Though imaging manifestations are not the same. Sometimes it is difficult to judge anal fistula’s type. Generally speaking, operation is the main method to treat this disease, enhance prognosis and reduce complication.

2. Case presentation

A 58-years-old male with perianal pain was sent to our hospital. Multiple perianal wound and abscess discharge occurred during the last 9 years. It became milder at begin and the pain was severe just after eating spicy excitant food. As time went on, perianal symptom became worse, and fistula number increased in the bottom position, leading to a vicious cycle with continuous throbbing pain. Especially, discharged abscess increased in last week. According to anamnesis, the patient accepted fistulectomy 9 years ago at the local hospital, but the disease recurred soon. The patient did not sought medical help, because the recrudescence disease made tiny influence in his daily life firstly, so it came to today’s intractable situation.

Visual examination presented that numerous ends of fistula repaired epidermal tissue and formed stale cicatrice. We could find abscess discharge from the fistula, and around a quarter area was influenced (Figs. 1 and 2). When pressing aberrant area slightly, palpation could touch fluctuation and the patient felt aggravated pain. Digital rectal examination could touch a small scleroma in inner-rectum-wall.

No inner-bowel damage was displayed during the colonoscopy examination (Fig. 3). Letting shot arrive into cecum to observe each part of enteric cavity. The inner-bowel wall was smooth and excluded other bowel diseases, such as cancer. Perianal ultrasonography examination (knee-chest position) showed up between 1o’clock and 5 o’clock. Surgisiss position was in many low-no echo areas, and the biggest proportion was about 3.7cm × 1.2 cm, that was connected to skin by a fistula. According to this appearance, perianorectal abscess was found (Fig. 4).

Pelvic magnetic resonance imaging (MRI) revealed fistulas clearly. In T1 cross-sectional screenage, the massive abscess was located deeply under the skin. The deeper side was not contacted.

Fig. 1. lithotomy position.

Abbreviations: MRI, magnetic resonance imaging.
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to muscles, while the shallow side broke through skin (Fig. 5). This appearance clearly presented subcutaneous the relationship between abscess and ambient tissue. T2 coronary screenage showed up the precious ducts and abnormal tissue location (Fig. 6). In this imaging photo, we can see a number of ducts with different length and orient. T2 pressure lipid coronal position screenage removed the influence of fat, and the brightness part was diseased region that was more extensive than the general type (Fig. 7). T2 sagittal position screenage displayed that the ducts did not connect with rectum, but the boundary between sphincter and diseased was indistinct (Fig. 8). Via MRI examination, the region of long T1 signal combined short T2 signal occupied area of 54.2mm × 9.9mm, and partial lesion reach ani internus sphincter. Therefor, according to parks classification, this type was defined as intersphincter anal fistula.

Considering this patient’s condition, fistulectomy was chosen to perform with anal fistula and perianorectal abscess was regarded as prediagnosis. In operation, by pressing perianal wound, it could find
Fig. 6. Coronal T2 screenage.

Fig. 7. Coronal T2 screenage.

Fig. 8. Sagittal plane T2 screenage.

Fig. 9. Using finger to explore.

Fig. 10. Separating tissue to display the duct. the fistula.

Abscess discharged from 6 places in cicatrice area. By taking lithotomy position, at 6 o’clock position, perianal fistulas’ inner opening can be searched, 1 cm off away from crissum. The skin around duct touched stiff, and the duct pass through internus sphincter, though the type was distinguished clearly. The outside perianal skin wound was probed at 6 o’clock, 8 o’clock, and 10 o’clock, and all those three directions could pass at 6 o’clock inner position. We made ultimate diagnosis that this is an anal fistula mixed perianorectal disease. Fusiform incision was adopted at 10 o’clock direction to separate subskin tissue bluntly and excise hyperplastic inflammatory tissue, we discovered a fibrous strip fistula (Fig. 9). After separating the fistula, the inner end of fistula was displayed on the inside of external sphincter (Fig. 10). The same method was applied to deal with the rest of fistulas. After stemming the bleeding well and performing local blockade on tissue around excision with methylene blue and lignocaine mixed liquid to alleviate postoperation pain, the surgery finished (Fig. 11). Pathology examination informed that the excised tissue was granulation tissue and fibrous tissue (Fig. 12). Follow-up visit in 6 months and 1 year revealed that no symptom recurred.

3. Discussion and conclusion

As a familiar perianal disease, anal fistula featured by discharging purulent, mucosity, or blood excretion from perianal fistulas continuously or sporadically. MRI or ultrasonography diagnosis is precise. Anal fistula was usually transformed by perianorectal abscess, and was also closely related to perianal trauma, tuberculosis, cancer etc. According to the various locations about fistulas and sphincter, this disease was divided into 4 types. Different types
can be mixed or occur with other perianal disease, making situation complex.

In this case, through imaging appearance and intraoperative scene, we judged that it was intersphincter type. Under normal circumstances, the duct was only one outside opening in this type. But in this case, the number of ducts was much more larger than one which was a point that the case differed from the before case reports. It showed us a very rare performance about this type - in most cases the duct had only one outside opening but in rare cases it didn’t - which could expend and deepen the understanding of this disease, reducing occurrence rate of mistakes in diagnosing. Beyond that, this case also had another difference among this series of anal fistula. Did not gained timely treatment, diseased region was spreading a quarter area, which violated the skin and subcutaneous location. Visual examination presented more serious appearance than the likely complex type. Its long medical history also conformed to its benign disease character. The detailed imaging examination revealed the fistulas’ particular condition, suggesting the duct’s intimate relation with arse muscles. In conclusion, although the treatment is given, under this circumstances, postoperation recovery could be worse than others.

Complex anal fistula’s treatment is a significant and sticking point. Lacking medical sense was one factor to generate the patient to report his present situation in this case. Operation is the main method to treat at present, enhance prognosis, and reduce complication. This patient was performed traditional fistulectomy. This method was the most classic therapeutic schedule. With the development of researches, Garcia-Olmo and his team devoted to explore expanded adipose-derived stem cells for the treatment of complex perianal fistula, and their phase II clinical trial was successful in 2009 [1]. Then they adopted this therapy in clinical treatment, proving that stem cells are safe and useful for treating anal fistula even though in severe cases [2]. Although our hospital did not applied this method, we hope one day this new method will be proved more suitable in the similar case that we reported in the article, and then it can be used extensively. Anal fistula patients face postoperative recurrent challenge, and hence, clinical treatment can heal the disease. They still need to pay attention to precaution, and keep away from the factors that could promote anal fistula. This work has been reported in line with the SCARE 2018 criteria [3].

Declaration of Competing Interest

Authors signed without any controversy.

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Ethical approval

We have got ethics approval and consent to participate, availability of data and consent for publication.

Consent

Thanks for everyone’s effort about this report. Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Author contribution

Corresponding author - J HY - presented, and amended the first draft. The first author - WH - collected data and wrote the first draft. The second author - FY - collected data. All authors have read and approved the manuscript.

Registration of research studies

N/A.

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