

## Letter to the Editor

### Use of autologous adipose stem cell for the treatment of recurring and complex anal fistula

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#### Dear editor,

We are pleased to send the manuscript for your consideration "Use of autologous adipose stem cell for the treatment of recurring and complex anal fistula".

Rectal fistula is a common anorectal disease with an annual incidence of 8-10 cases per 100,000 people<sup>1</sup>. In 1976, Park and colleagues developed a classification of fistula-in-ano, dividing it into four types depending on the anatomical site that the fistula occurs. Complex fistula, which usually affects both sphincters, can cause incontinence if treated with traditional surgical procedures. Therefore, the treatment of complex rectal fistula is still a challenge<sup>2</sup>.

A significant question in the treatment of complex rectal fistulas is how to preserve the sphincter and heal the fistula tract in the same procedure. Traditional surgical procedures have high recurrence rates, and fecal incontinence is a major problem in surgery. In recent years, new therapeutic approaches such as the use of tissue-derived mesenchymal adipose stem cells (ASCs) have emerged as potential tools in fistula-in-ano surgeries<sup>3</sup>.

In our study, we evaluated the effectiveness of the injection of autologous, micro-fragmented, minimally manipulated adipose tissue in the treatment of recurrent complex anal fistulas. We followed eight patients for sixty

months, and after a three-month follow-up, six of the eight patients already had their external orifice closed. We recorded no intraoperative or postoperative complications, and one case of abdominal pain due to liposuction was noted.

Although our study had a limited number of patients, it showed that the injection of microfragmented ASCs is a promising tool for those affected by recurrent rectal fistulas. However, further studies are necessary to assess the technique's benefits, including studies with a longer follow-up time, more patients, and a group control. Patients should be divided by the anatomical location, using Park's classification for more consistent analysis<sup>4</sup>.

In conclusion, ASCs may represent a possible tool in the care of patients affected by recurrent complex rectal fistulas. Therefore, further studies are necessary to assess the benefits of this technique fully.

Sincerely,

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