



How does VAAFT fit into the world of clinical and academic anal fistula?

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This edition includes a systematic review and meta-analysis conducted by Tian and colleagues detailing the outcomes of curative Video Assisted Anal Fistula Treatment (which we denote with the prefix ‘c’VAAFT) for complex anal fistula. Their review includes 14 cohort and case–control studies published in the last 10 years. They found that clinical closure of the tract could be achieved in a notable 83% of cases, with post-procedural complications other than recurrence in 11%. Although only reported in six studies, rates of faecal incontinence as determined by the Wexner score were low, adding to the list of favourable characteristics of VAAFT extolled by this study. Despite such encouraging findings, we take a rather more cautious view of the curative potential of this procedure and the conclusions drawn from this investigation and its primary sources.

Proctologists experienced in dealing with complex anal fistula will have grown accustomed to the familiar trajectory followed by the majority of sphincter preserving procedures, which frequently begin with optimistic reports of success that gradually wane over time. This pattern may be due to material diminishing effectiveness (whether related to the technique or not), broadening inclusion criteria, or the variable rigorousness and independence with which these novel techniques are assessed.

As noted by Tian et al., there is a paucity of well-designed randomised controlled trials with transparent and relevant inclusion criteria and outcomes, meaning that conclusions are frequently drawn from the pooling of small-scale, often retrospective studies. These studies are themselves based

on heterogenous participants with variable disease severity and inadequate reporting of baseline characteristics, limiting the validity of findings to particular patient populations, resulting in meta-analyses with significant heterogeneity and perhaps invisible inaccuracy.

This is perfectly demonstrated by this systematic review, where the definition of complex anal fistulae includes a wide range of patients, such as those with tracts involving > 30% of the external sphincter as well as those with recurrent fistulae, horseshoe morphology, multiple tracts or associated with Inflammatory Bowel Disease (IBD). One might argue that a primary, straight, high transsphincteric tract would be more likely to heal than a recurrent tract with multiple extensions and a background of Crohn’s Disease. However, by definition these patients are grouped together in this analysis, and extrapolation of the results to both a straight transsphincteric tract involving 31% of the EAS, and a complex fistula with a horseshoe seems optimistic, especially if one expects healing in four in five of these fistulae.

In addition, poor outcome definition [1] with short-term follow-up is likely to over-estimate treatment success. Few studies continue follow-up beyond one year post procedure, and reporting of median follow-up obscures the duration during which recurrence was actively monitored, as well as the shorter follow-up experienced by half of the patients. Whilst recent initiatives, such as the development of an anal fistula Core Outcome Set [2], and an anticipated Core Measurement Set will go some way towards addressing these issues, a conscientious and collective drive towards establishing robust standards of research in anal fistula is needed before we can have confidence in the conclusions drawn. This might include reporting of a *minimum* follow-up length as well as a median, and a more careful approach to assessment of continence impairment than is usually seen.

Despite such reservations, the value of VAAFT in managing complex anal fistula should not be ignored. The treatment holds certain advantages with respect to more traditional procedures. Tian and colleagues suggest that the

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ability to visualise directly and define fistula anatomy is improved by VAAFT and that this results in better detection of the internal opening (IO), which is known to minimise the risk of recurrence [3]. Randomised data comparing VAAFT against EUA alone would be needed to confirm this and in our experience, VAAFT is only one of several tools which help to identify the IO itself. Nevertheless, VAAFT is able to identify *and to treat* branches of complex fistula, including second IOs, which other sphincter preserving procedures cannot do. In addition, the enhanced understanding of complex fistula which VAAFT provides can guide further management and training.

There is another advantage of the VAAFT procedure. The minimally invasive nature should theoretically reduce post-operative pain. This is supported by the presented data. Even if the success rate of the cVAAFT procedure is found to be much more conservative in the long term than these data suggest, the low complication rate, tolerable side-effect profile, favourable post-operative continence rate, and crucially, suitability for use in some of the more complex fistula morphologies, make it a viable and reasonable option for patients with complex disease, for whom other curative options are limited.

We would highlight the non-curative properties of VAAFT which have been demonstrated in recent studies. For example, direct visualisation and debridement of the tract has resulted in symptomatic improvement for patients with perianal Crohn's fistulae. As a result 'palliative VAAFT (pVAAFT)' is used in our symptomatic perianal Crohn's Disease pathway [4]. Cannulation of the tract results in the ability to target cauterisation and debridement to specific areas of fistula morphology, with the aim of downstaging or rationalising complex anatomy. This is known as staged, delta or dVAAFT. Recent studies have suggested that patients undergoing dVAAFT also report symptomatic improvement and may go on to have second or third procedures with curative or palliative intent [5]. Our own series demonstrates improvement in fistula morphology on MRI in a subset of patients undergoing dVAAFT (manuscript in preparation).

Amongst other utilities, the fistuloscope has been used in tortuous tracts to support minimally invasive seton placement [6]. These benefits of VAAFT have only recently been documented in the literature. The roles in symptom improvement and rationalisation require further investigation with appropriate endpoints, including change in symptoms, anatomy, or quality of life to systematically assess these non-curative aims.

Whilst the evidence presented regarding the success of cVAAFT is promising, the flaws of assessment and the historic 'un-plug' effect, of diminishing efficacy seen as sphincter preserving procedures are more widely studied need to be borne in mind. The likelihood of success may need to be determined on a case-by-case basis, with patient expectations managed accordingly and the wider uses of VAAFT are important avenues of research to be considered in future studies. Finally, this study highlights once again the limitations in reporting for fistula research and demands a response from the fistula surgical community which we continue to strive to answer.

Declarations

Conflict of interest The authors declare that they have no conflict of interest.

Ethical and informed consent Not applicable.

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