Evaluate Vantage

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Setpoint needs to up its game in Crohn’s

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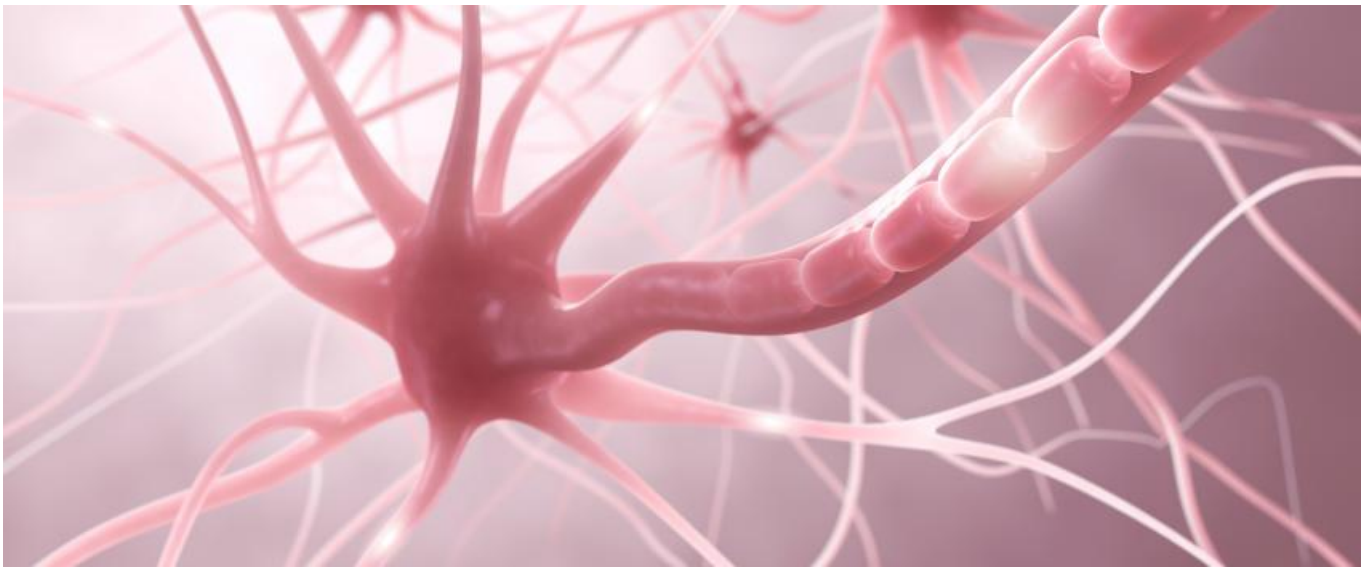

It's a start, but sham-controlled trials are needed.

New data on Setpoint Medical’s attempts to treat Crohn’s disease using neurostimulation expand the number of patients in which the technique has been trialled – a necessary step for approval – but without much of an improvement on earlier data in terms of success rates.

Applying vagus nerve stimulation to inflammatory, rather than neurological, disorders was always considered somewhat unintuitive. However Setpoint has talked a good game, charming Glaxosmithkline and Medtronic, among others, into funding its work. Future trials will have to be larger, blinded and sham-controlled if Setpoint’s technology is to find a market and its backers are to see a return.

The new data, presented at the Digestive Disease Week meeting in Washington, DC, come from an open-label trial called SPM-007, being conducted in Croatia, Italy, the Netherlands and Sweden. This tests the ability of vagus nerve stimulation to improve Crohn’s symptoms in patients who have not responded adequately to anti-TNF drugs or other targeted biologics.

Setpoint says that more than 60% of the 16 moderate-to-severe Crohn’s patients in the study had significant reductions in disease activity as measured by the Crohn’s Disease Activity Index (CDAI) after 16 weeks of treatment. A drop of 70 or more points on the CDAI scale is considered to be clinically meaningful.

Eight of the 16 patients saw their CDAI score decrease by 100 points or more, and four achieved a CDAI score of less than 150, meeting the clinical definition for remission. There were 14 serious adverse events in the study, but only one, a postoperative infection, was device-related.

Lower response

These data look good – until they are compared with earlier results from the same trial. Back in 2016 Setpoint released interim data from the ’007 study showing that six of the first eight patients had CDAI score reduced by 70 points or more at 16 weeks, suggesting a response rate of 75% (*Setpoint leads the Crohn's medtech race by being the only entrant, October 20, 2016*).

That said, patient numbers are small and SPM-007 was only ever intended to prove the concept, which it can be said, just about, to have done. Indeed, this study does not even use proprietary Setpoint technology, instead employing a modified version of a neurostimulator made by Cyberonics, which has since become Livanova.

The next step in Crohn’s is to start a trial with a more robust design and using actual Setpoint tech, which is

exactly what Setpoint is doing in the other disorder it is aiming to treat, rheumatoid arthritis.

In March the company launched a pilot US trial, SPM-008, of its own proprietary device in 15 patients with drug-refractory RA. As with the Cyberonics device, Setpoint's stimulator is surgically placed on the vagus nerve in the neck to deliver electrical impulses on a preset schedule to dampen the activity of inflammatory cells.

SPM-008 incorporates a sham control group, whose stimulator will be implanted but not switched on. The primary endpoint is safety, and the trial is scheduled to conclude at the end of this year. Only then will investors and others be able to get a sense of the utility of Setpoint's device in RA. Its utility in Crohn's will take even longer to be established.

SetPoint's clincial trials

Trial name	Description	Status	Completion	NCT ID
SPM-008	US pilot study in 15 RA patients using proprietary Setpoint device	Recruiting	Dec 2018	NCT03437473
SPM-005	European pilot trial in 18 RA patients using modified Cyberonics VNS	Completed	Mar 2014	NCT01552941
SPM-006	Phase I/II extension trial to SPM-005	Active, not recruiting	May 2018	NCT01552538
SPM-007	European pilot trial in 15 Crohn's disease patients using modified Cyberonics VNS	Active, not recruiting	Aug 2017	NCT02311660
SPM-010	Phase I/II extension trial to SPM-007	Active, not recruiting	May 2018	NCT02951650

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