LETTERS

Acupuncture for symptomatic relief of gastroparesis in a diabetic haemodialysis patient

SUMMARY

In this report, we present the case of a diabetic haemodialysis patient with refractory gastroparesis treated with 16 sessions of acupuncture through 8 weeks as an adjunct to conventional drug treatment including prokinetics and antiemetics which remained the same during the treatment course. After the treatment, the total Gastroparesis Cardinal Symptom Index (GCSI) score (range 0–5) was reduced from 2.4 to 0.6 and half gastric emptying time measured by gastric scintigraphy with a solid meal was decreased from 135 to 93 min. At a 4-month follow-up after treatment, the patient reported complete reduction of subjective symptoms. We suggest that acupuncture may be an acceptable adjunct to the comprehensive care of gastroparesis in diabetic haemodialysis patients.

CASE HISTORY

A 51-year-old man was referred to the acupuncture research centre with frequent nausea, vomiting and lack of appetite. His medical history showed that he had been diagnosed with type II diabetes and hypertension 19 and 10 years ago, respectively. He had been engaged in regular haemodialysis through a local haemodialysis centre for 9 months. His medical history showed that he had been engaged in regular haemodialysis at a tertiary hospital owing to haematochezia, and colon cancer and a polyp were found and removed by colonoscopy; this finding seemed to be unrelated to the acupuncture procedure. A 4-month follow-up after treatment showed complete reduction in both the total and subscale scores of the GCSI (see figure 1). A follow-up scintigraphy scan was not performed.

GCSI scores at each measurement

![GCSI scores at each measurement](image_url)

**Figure 1** Three subscales and the total GCSI scores showed substantial and complete reduction at the post-treatment and 4-month follow-up evaluation compared with baseline. GCSI, Gastroparesis Cardinal Symptom Index.

DISCUSSION

Gastroparesis is a syndrome characterised by delayed gastric emptying in the absence of mechanical obstruction of the stomach.² The symptoms consist of postprandial fullness (early satiety), nausea, vomiting and bloating, which may negatively influence nutritional status and decrease quality of life among patients with symptoms.² In diabetic dialysis patients, poor food intake and unpredictable nutrient absorption might be a substantial obstacle for optimal disease management. Pharmacological interventions, including prokinetic and antiemetic drugs,
might produce less than satisfactory results, and non-pharmacological interventions, including endoscopic injection of botulinum toxin, gastric electrical stimulation and gastric surgery, have not been conclusively proved to be effective and safe. In some patients undergoing dialysis, current conventional treatment might not be an acceptable or realistic option because of their altered pharmacokinetics and higher risk of mortality in comparison with the non-dialysis population, thus presenting a possible contraindication for pharmacological or invasive non-pharmacological treatments.

In this case, the cardinal symptoms of the patient responded poorly to the prokinetic and antiemetic drugs. After 16 sessions of acupuncture as an adjunctive treatment, the patient’s subjective symptoms were significantly reduced and the gastric emptying time, as measured by solid meal gastric scintigraphy, showed a substantial reduction from the pretreatment evaluation. Obviously, we cannot exclude the possibility of a placebo effect through one observational case report. However, the feasibility of acupuncture treatment as an adjunct for intractable gastroparesis in diabetic dialysis patients with poor response to conventional pharmacological or invasive non-pharmacological treatments or a preference for alternative treatments is worth exploring.

Little is known about the exact mechanism by which acupuncture enhances gastric motility and improves dyspeptic symptoms. One possible explanation may be related to the regulatory effects of acupuncture on autonomic nerve function as related to gastric motility.

Changes of gastric hormones after electroacupuncture were also tested in patients with diabetic gastroparesis, although there was no significant correlation with clinical improvements.

While there is substantial literature reporting the mixed results due to acupuncture, the antiemetic effects of acupoint PC6 stimulation are well-established. Ezzo et al suggested that future research might be conducted for patients with refractory symptoms and for testing the combined use of PC6 with other acupoints or with conventional medication. In light of this suggestion, providing adjunctive acupuncture treatment for refractory symptoms of gastroparesis in haemodialysis patients may be feasible and is a worthwhile subject of further research.

CONCLUSION
In this case, 16 sessions of adjunctive acupuncture treatment relieved refractory symptoms of gastroparesis in a diabetic haemodialysis patient. Future controlled trials are justified to evaluate the feasibility and benefit of acupuncture in these patients.

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