Reviewer's report

Title: The effect of oral supplementation with a combination of beta-hydroxy-beta-methylbutyrate, arginine and glutamine on wound healing: A retrospective analysis of diabetic haemodialysis patients

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Reviewer: Frances L Game

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This is an uncontrolled series of 11 patients on dialysis with Diabetic Leg wounds who received supplements with a combination of beta-hydroxy-beta-methylbutyrate, arginine and glutamine over a 4 week period

I have several major criticisms of this paper

Background
There’s some odd referencing here; the paper by Jeffcoate actually suggests that there is little that is evidenced based to improve wound healing in patients with diabetic foot wounds and emphasises the need for an MDT and integrated care. There is nothing about nutrition.
Reference 6 is about muscle mass not about wound healing
Reference 7 is a study looking at collagen deposition on implanted plastic tubes during AA supplementation – there is nothing about wound healing

Methods
The design of the study is said to be retrospective and therefore did not require ethical approval. However written informed consent was obtained from the patients – I don’t understand this at all.

The use of the Bates-Jensen wound assessment tool was not as described by Barbara Bates Jensen. This tool has multiple wound assessment domains- not just 2 that have been misdescribed by the authors. The domains in the Bates Jensen tool include: Size, depth, edges, undermining, necrotic tissue type and amount, exudate type and amount, surrounding skin, oedema, granulation and produces a score from 1-60.

Results
Even using the unvalidated tool that the authors describe patient 2 looks like they had no open wound pre-and post treatment!

Discussion
Again poor referencing. Whilst it is true that wound healing is worse in patients with renal disease and diabetes this global consensus guideline (ref8), does not describe this at all. There are plenty of other epidemiological studies that should
I disagree that this study showed that the nutritional support was useful for the treatment of foot ulcers (5th sentence paragraph 1). There was no control group and 1 patient appeared to have no open wound. This comment is not supported by the data.

Wound healing is complex but again the references do not support the data. Ref 11 is an RCT of the use of hyperbaric oxygen in ischaemic wounds. It cannot be used to support a statement that oxygen is necessary for wound healing. Most patients heal without the use of HBO!

Conclusion
The conclusion is simply not supported by the data presented

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests