Reviewer's report

Title: Preliminary experience improving the outcomes of primary augmentation using porcine acellular dermal matrix, including a novel technique for internal scarless mastopexy, in patients with poor-quality mammary soft-tissue support at increased risk of capsular contracture: a consecutive case series

Version: 2 Date: 8 August 2013

Reviewer: Robert Cohen

Which of the following following best describes what type of case report this is?: Other

If other, please specify:
New techniques and uses of ADM in aesthetic breast surgery

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: Yes

Is this case worth reporting?: Yes

Is the case report persuasive?: Yes

Does the case report have explanatory value?: Yes

Does the case report have diagnostic value?: No

Will the case report make a difference to clinical practice?: Yes

Is the anonymity of the patient protected?: Yes

Comments to authors:

General thoughts:

Very nice results overall and an interesting variation on the use of PADM for internal mastopexy. I also use PADM pre-emptively in patients with weak tissues and appreciate the value of this material.
I do have concerns about the some aspects of the paper that should be considered prior to submission:

The author refers multiple times to "poor-quality" mammary support, but does not provide a means or reference to quantify the concept of "poor quality" other than referring to etiologies such as pregnancy, weight loss, etc. Would be more effective to describe physical exam features such as skin pinch thickness, skin stretch, striae, etc.

The number of cases presented with regards to this new technique (internal mastopexy) is relatively small. Would be more effective if more cases were presented.

Would like to see more explanation of the technique itself- ie, were all sutures interrupted mersilene, how far apart were they placed, etc. Did the author consider using a contour shape of Strattice? What is the minimal tissue thickness needed to avoid seeing the internal plications of the ADM through the skin?

The author may want to consider splitting the one paper into 2 more detailed papers- one on pre-emptive use of PADM, and one on the new mastopexy technique. The term "scarless" is also a little misleading and I would consider changing to "minimal scar" or something along those lines.

Specific issues:

In the abstract "case presentation" the statement "mitigates post-operative complications" seems somewhat of a stretch given the small number of patients in the case study

In the introduction, the effect of compression atrophy should be removed as the paper addresses primary breast surgery only.

Also in introduction, second paragraph "in the author's experience"- there should be published papers to reference that would be a stronger presentation.

On case 1, implants were "very large relative to her frame". Does this mean they exceeded her BWD or tissue parameters?

Patient 1 last paragraph- probably unnecessary details with regard to the postop pain madication info.

Patient 2 ist paragraph- "avoid visible scarring" somewhat misleading since there is an areolar scar. "avoiding vertical or circumareolar scarring" would be more accurate.

Discussion section, 3rd paragraph- there are quite a few assumptions regarding the etiology of capsular contracture with regards to the ability of the soft tissue to support the implant. I don't feel that the comparison with breast reconstruction is very convincing since there are many other variables besides loss of soft tissue support to explain the higher CC rate.
Thank you and good luck with the paper!
-RC

**Quality of written English:** Acceptable

**Declaration of competing interests:**

I am a paid consultant for Lifecell. Publication of this paper would have no direct impact on me financially, although it would potentially benefit Lifecell as a company.