

Case Study of a Bakers Grade 4 Capsular Contracture and the Zimmer Z Wave Treatment

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The Patient is a 68 y.o. female with no comorbidities and taking no medications or natural supplements. Patient underwent a breast augmentation 28 years prior without any complications. Patient is a current cosmetic patient and presented on 7/21/2020 with an acute implant rupture.

The patient underwent a bilateral implant exchange with capsulectomy on 8/7/2020. On 8/18/2020 she presented with a hematoma of the right breast. The hematoma was subsequently drained. During the next 4 subsequent weeks the patient developed a Bakers grade 4 capsular contracture. The patient underwent 6 Zimmer Z Wave radial soundwave treatments with the setting of 16 Hz and 120 mj each time. 10,000 pulses per treatment were administered. The treatments to the right breast were circumferential.

On 9/30/2020 the patient was taken back to the operating room for capsulectomy. The patient was reluctant to go through surgery again and agreed to have additional non-invasive Zimmer Z Wave treatments performed.

The patient underwent 6 additional Zimmer treatments with an altered protocol: 6000 pulses at a setting of 16Hz and 120 mj followed by 6000 pulses at a setting of 10 Hz and 185 mj on a biweekly protocol. The capsular contracture improved, however the breast continued to be



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Before Z Wave



After Z Wave



Before and after a series of non-invasive Z Wave radial pulse treatments. "Before" picture taken post surgery on 10/15/2020. Photos Courtesy of Dr. Anna Buinewicz.

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superior in position to that of the contralateral breast.

The protocol then was changed to treatments alternating every other day for 2 weeks and then weekly. The implant dropped into a correct anatomic position with no firmness to tissue.

Conclusion:

The change in depth and energy with the acoustic procedure significantly improved the contracture. In addition, the increased repetition of treatments alternating daily created a cumulative effect on the breast tissue. The breast is now placed in a normal anatomic position without palpable scar tissue noted on exam.

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FOR FURTHER READING

Modena DAO, da Silva CN, Grecco C, et al. Extracorporeal shockwave: mechanisms of action and physiological aspects for cellulite, body shaping, and localized fat--systematic review. *J Cosmet Laser Ther.* 2017 Oct;19(6):314-319.

Chen PC, Kuo SM, Jao JC, et al. Noninvasive Shock Wave Treatment for Capsular Contractures After Breast Augmentation: A Rabbit Study. *Aesthetic Plast Surg* 2016 Jun;40(3):435-45.

Wu YC, Jao JC, Yang YT, et al. Preliminary study of non-invasive shock wave treatment of capsular contracture after breast implant: animal model. *Conf Proc IEEE Eng Med Biol Soc* 2013;2013:1108-11