**Additional file 4: Adverse events** 

Adverse event	Sham Device	LIPUS
Non-operative		
pain at the site of screws	1	0
superficial infection	0	3
fracture blisters and boils	0	1
pneumonia	0	1
pneumonia-like symptoms	1	0
possible operation-related infection	0	1
low grade fever	0	1
fracture mal-union	0	2
neurapraxia of the saphenous nerve	0	1
hospitalization for deep vein thrombosis	1	0
and pulmonary embolism		
Operative		
implant removal	1	0
implant exchange	0	0
irrigation & debridement	1	5
bone graft	0	0
pre-operative fasciotomy	0	0
post-operative fasciotomy	0	1
amputation	0	0
soft tissue infection	0	0
screw removal	5	3
screw exchange	0	0
fracture non-union	2	1
fracture mal-union	0	0
implant infection	0	1
superficial infection	0	2
fracture gap	0	0
painful hardware	3	1
open wound	0	6
broken nail	0	0
broken screw	0	0
pre-operative compartment syndrome	1	1
post-operative compartment syndrome	0	1
nail migration	0	0
screw migration	0	1
elective screw removal	1	0