Irreversible muscle damage in bodybuilding due to long-term intramuscular oil injection.

Abstract:
Intramuscular oil injections generating slowly degrading oil-based depots represent a controversial subject in bodybuilding and fitness. However they seem to be commonly reported in a large number of non-medical reports, movies and application protocols for 'site-injections'. Surprisingly the impact of long-term (ab)use on the musculature as well as potential side-effects compromising health and sports ability are lacking in the medical literature. We present the case of a 40 year old male semi-professional bodybuilder with systemic infection and painful reddened swellings of the right upper arm forcing him to discontinue weightlifting. Over the last 8 years he daily self-injected sterilized sesame seed oil at numerous intramuscular locations for the purpose of massive muscle building. Whole body MRI showed more than 100 intramuscular rather than subcutaneous oil cysts and loss of normal muscle anatomy. 2-step septic surgery of the right upper arm revealed pus-filled cystic scar tissue with the near-complete absence of normal muscle. MRI 1 year later revealed the absence of relevant muscle regeneration. Persistent pain and inability to perform normal weight training were evident for at least 3 years post-surgery. This alarming finding indicating irreversible muscle mutilation may hopefully discourage people interested in bodybuilding and fitness from oil-injections. The impact of such chronic tissue stress on other
diseases like malignancy remains to be determined.