

## Editorial

# Mythbusting in Orthopedics challenges our desire for meaning

This issue of *Acta Orthopaedica* includes an important paper by Husted et al. (2014), which shows that several common surgical and peroperative precautions cause cost and discomfort for no gain at all. The authors join the growing, heroic little group of orthopedic mythbusters.

Myths are stories about deities or heroes, whose deeds explain phenomena in nature. In old times, when thunder was said to be Thor fighting evil giants, probably few people took it literally, but the myth still alleviated the trepidation caused by thunder and lightning. Old myths tend to live on through millennia; they have a poetic component and obviously appeal to important emotions. A good story is easy to remember, and catches on even if it is obviously false. Established facts, on the other hand, are easily forgotten if they do not form a conceivable story. Mythbusting in this context means deconstruction of concepts, leaving just fragmentary facts that do not form any meaning. No wonder, then, that mythbusters tend to be unpopular.

So what is a myth in medicine? It is not everything that is false, but rather concepts that are based on something akin to a story. It is a good story that meniscal tears cause pain and that when they are removed, the pain goes away as well. Showing that pain relief is mainly due to placebo effects means destroying a good story, which might be as unpopular as depriving some colleagues of a good business (See correspondence regarding knee arthroscopy in this issue (Krogsgaard et al. 2014)). Another good story “busted” in this issue is about the orthopedic skills in ancient Egypt (Blomstedt 2014).

Like other medical fields, orthopedic practice may be full of myths, meaning concepts based on combining reasonable observations into a meaningful story that in the end proves to be wrong. The skin is full of bacteria, instruments in the wound touch the skin. Cover it with plastic film! Dental treat-

ment leads to bacteremia; bacteria cause infections of joint prostheses. Protect them with antibiotics! Indeed, almost all clinical decision-making is based on combining observations—including those from randomized trials—into a story that motivates what we do (or what we do not do). When such stories emerge and spread without being tested scientifically, they can become medical myths, and we tend to cling to them because they provide us with a sense of meaning, just as the classical myths may have done in antiquity.

We should not refrain from making stories; creativity is definitely required to be a good doctor. What we should do, however, is to be skeptical, and check whether conclusions that seem reasonable are really correct. Randomized trials and meta-analyses are badly needed in orthopedics. There is no conflict between creating stories and testing their validity, and storymaking in medicine is necessary. Without enthusiasts promoting new, unvalidated concepts and treatments, in the end there would be nothing for evidence-based medicine to validate. And if medicine were nothing but the sum of findings from randomized trials, all real understanding would be lost. Those who created medical myths are worthy of praise, as are those who “bust” them. It is those who cling to them after they are proven wrong that should be criticized—for their ignorance or lack of skepticism. Skepticism is the essence of academic life. Too much of orthopedics operates too far away from academia.

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Husted H, Gromov K, Malchau H, Freiberg A, Peter Gebuhr P, Troelsen A. Traditions and myths in hip and knee arthroplasty: A narrative review. *Acta Orthop* 2014; 85(6): 548-55.